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JDR Microdevices®

1998 CATALOG #67C

Electronic Components



Your Source for Electronic Components

Robotic Kits from \$23.99 page 18

Weller Soldering Stations from \$39.99 page 11

Atmel AT89C Series ICs from \$4.99 page 25

New Low Prices for PIC Processors page 23

Plus Bulk Discounts on Over 3,000 Products

ROBERT
TINNEY

Why Buy From JDR?



- 1 30-Day Money-Back Guarantee** – If you're not satisfied, we're not either!
- 2 2-Year JDR Warranty** – All products we sell are covered by our own two-year warranty!
- 3 Quick Delivery** – Over 99% of orders are shipped the same day!
- 4 Selection** – Choose from over 7,000 items from hundreds of manufacturers!
- 5 Pre-Qualified Products** – We make sure an item works BEFORE we decide to carry it!
- 6 Special Order Desk** – If you don't see it in our catalog, call us!
- 7 20 Years in Business** – We'll be here to serve you now, and in the future!

PRODUCT LOCATOR

A - C

Alligator clips	42, 46
Anti-static foam	8
Banana plugs & jacks	45
Batteries	40
Benchmeters	13
Books	4, 19-21, 23, 26-27, 30-31
Boxes	39
Breadboards	1-5
Cabinets	39
Cable markers	47
Cable splitters	45
Cables	
Audio	45
BNC	48
Coax	46, 48
F-type	48
Network	47
Patch	48
RCA	48
Ribbon	42, 47
Twinax	46
Capacitors	36
Conductive pens	E4
Connectors	
Banana	45
BNC	46
Card edge	42, 46
Centronics	42
Coax	46
Component carriers	42
Crimp	8, 44
D-SUB	42, 44
DIN	45, 48
DIP	42
Edge	42, 46
F-type	45, 48
Headers	43
Hoods	44
IDC	42
Jumper blocks	43
Modular	46
Network	46
PGA	41
Phone	46
PLCC	41-42
Power	45, 48
RCA	45
Ribbon	43-48
SCSI	43
Snappable headers	43
VESA	41
Wire-wrap	41, 43-44
ZIF	41
Crimp Tools	6, 8

D - E

Digital displays	38-39
Digital multimeters	13
DIMMs	24
Diodes	33
DIP switches	40
DRAM	24
EDO SIMMs	24
Electronic kits	15-19
Enclosures	39
EMI filter	9, 19
Extender cards	1

F - L

F-splitters	45
Fans	40
Fuses & holders	14
Headers	43
Heat gun	10
Hoods	44
Integrated circuits	
A/D converters	26
Altera	23
D/A converters	26
Dallas Semiconductor	27
Dynamic RAM	24
EEPROM	22
EPROM & labels	24
GALs	23
ICT	23
Intersil/Harris series	27
Linear	26, 28
Memory modules	24
Microprocessors	25
Motorola	21
NTE	34-35
Opto-isolators	33
PALs	23
PEELs	23
PLDs	23
RCA linear	26
Serial EEPROM	22
Signetics/Philips	23
Static RAM	24
Voltage regulators	28
Z80 series	25
4000 series	32
6500 series	24
6800 series	24
7400 series	29
74ACT series	31
74ALS series	30
74C series	22
74F series	30
74HC series	31

74HCT series	31
74LS series	29
74S series	30
8000 series	25
Jumper blocks	43
Keylock switches	40
Keystone faceplates & jacks	46
Kits	3, 15-18
LAN products	46-58
Laser diodes	33
LCDs	38
Lights	7, 16
Line cords	14
Locks	40
Logic probe	12
Logic simulator	5

M - R

Memory products	24
Memory tester	18
Metal oxide varistors	36
Micro-hooks	46
Motherboards	48
Muffin fans	40
Network accessories	46-48
Opto-isolators	37
Oscillators	32
Oscilloscopes	12
Potentiometers	27, 36
Power cords	14
Power inverter	14
Power supplies	14
Project boxes	39
Prototyping	1-5
Pulser probe	12
RAM	24
Relays	40
Resistors	35
Ribbon cable	42, 47

S

Schematic capture	5
SIMM & SIP DRAM	24
Silicon-controlled rectifiers	33
Socket ID wraps	2
Sockets	
AUGAT	41
Battery	40
Component carriers	44
IDS	44
Machine pin	42
Oscillator	17
PGA	41
PLCC	2, 41
SIMM & SIP	24
Solder tail	41

Wire-wrap	43
ZIF	41
Software	5, 48
Solder	10
Solder stations & tools	10-11
Solderless breadboards	3
Speakers	48
Static RAM	24
Step bits	9
Step transformer	14
Switches	40

T

Test equipment	
Audio oscillator & counter	12
Benchmeters	13
Clips	42, 46
Frequency counter	12
Function generator	12
IC tester	12
Logic probe	12
Multifunction counter	13
Multimeters	13
Oscilloscope & accessories	12
Pulser probe	12
Tie wraps	47
Tool kits	6-10
Tools	
Clamp	8
Crimp	6, 8, 44
D-SUB	8, 44
Hand	6-9
Hemostats	8
IC	6, 30, 42
Nibbling	8
PLCC extractor	6, 42
Punch-down	6
Solder	10-11
Step bits	9
Strippers	8
Test clips	46
Tool kits	6-9
Tweezer kit	7
VCR alignment kit	7
Wire-wrap	2-3, 43-44
Transformers	14
Transistors	33
Triacs	33
Twinax cable	46

U - Z

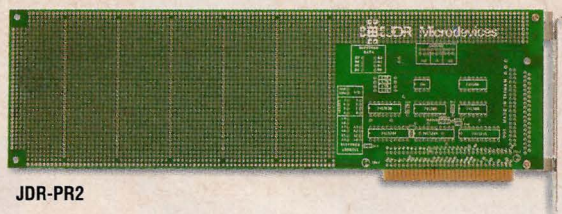
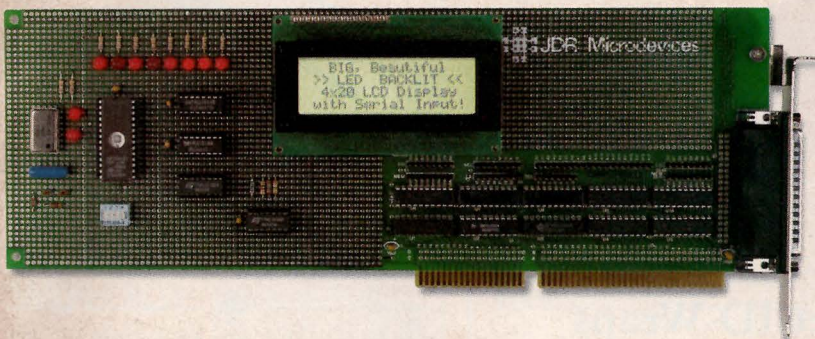
Varistors	36
Wall plates	43-44
Wire	2-3
Wire markers	17
Wire-wrap	2-3, 43-44

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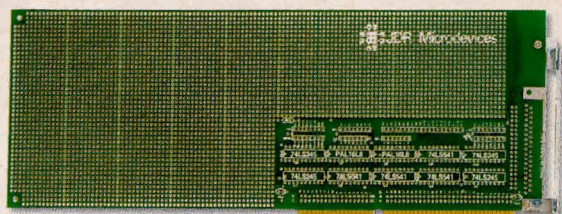
Prototype Cards with Decode Layout

Signals Conveniently Labeled on The Board

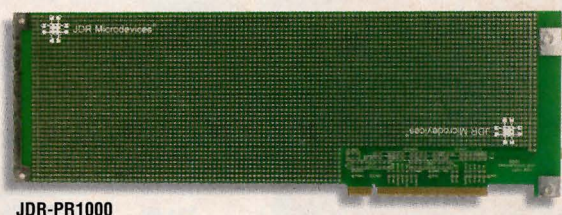
These cards speed up the implementation of new PC compatible hardware. They buffer the address, data and handshake signals, protecting both your design and test computer.



JDR-PR2



JDR-PR10



JDR-PR1000

- Available with decode and buffering PCB layout design
- Features plated-through holes, silk-screened legends, gold-plated edge card connectors, power and ground planes and labeled component test points
- Includes mounting bracket, card guide, documentation and more

JDR-PR10 16-bit ISA card with decode layout, 1 lb	\$34.99
JDR-PR10-PK Parts kit for JDR-PR10 decode circuitry, 1 lb	\$12.99
JDR-PR2 8-bit ISA card with decode layout, 1 lb	\$29.99
JDR-PR2-PK Parts kit for JDR-PR2 decode circuitry, 1 lb	\$8.99
JDR-PR1 8-bit prototype card, 1 lb	\$27.99
JDR-PR1000 32-bit PCI prototype card, 1 lb	\$59.99

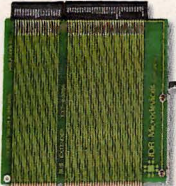
PC Extender Cards

Simplify prototyping and testing! These PC cards extend your test card above the case for ease in development and testing environments.

- Solder mask to prevent shorting
- FR4 epoxy glass laminate PC board
- Mounting bracket

EXT-8088 8-bit ISA bus extender, 1 lb	\$29.99
EXT-80286 16-bit ISA bus extender, 1 lb	\$39.99
EXT-PCI 1 lb	\$59.99

EXT-80286



EXT-8088



Protect Your Test Systems!

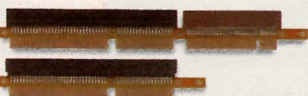
Protect your bus connectors from potential damage as a result of frequent card insertion and removal. Simply plug the bus saver into your motherboard, then plug your prototype into the bus saver.

- Available in ISA, PCI and VESA Local Bus (VLB) configurations
- PCB edge connectors are gold plated for reliability; ideal for prototyping applications

- Expanders convert 1 socket into 3

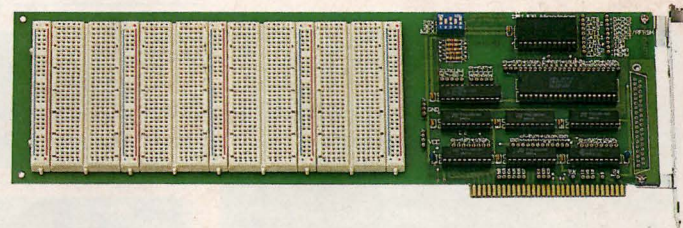
CV08I-16S 16-bit ISA Saver, 1 lb	\$24.99
CV08I-8S 8-bit ISA Saver, 1 lb	\$19.99
CV08P-2S PCI Saver, 1 lb	\$29.99
CV08P-R 3-slot PCI expander, 1 lb	\$49.99
CV08V-L 3-slot ISA/VLB expander, 1 lb	\$49.99
CV08R-30S 30-pin SIMM Socket Saver*, 1 lb	\$49.99
CV08R-72S 72-pin SIMM Socket Saver*, 1 lb	\$49.99

*Note: Plugs into motherboard sockets to reduce potential damage when SIMMs are frequently inserted and removed



PC Bus Breadboards with Decode Logic

Develop and test your PC compatible circuits in your computer without having to wire-wrap! Our breadboards simplify the design of a new circuit by providing you with the required decode and buffer circuits. We even include timers and parallel ports!



- 16-bit PC compatible ISA card
- All address and data bus lines are buffered to provide signal isolation for safe prototyping
- Address decode provided by GAL20V8 which allows reprogramming for user-specific applications
- 8255-5 Parallel Peripheral Interface supplies three 8-bit ports for control
- 8253-5 counter timer has three 16-bit registers to user-program as counters, timers or single-shot outputs. External test points allow cascading for higher counts
- Easy connections using 22 AWG solid-core wire

PDS-611 16-bit version with decode circuitry, 2 lbs	\$89.99
PDS-601 8-bit version with decode circuitry, 2 lbs	\$79.99
PDS-610 16-bit version without decode circuitry, 2 lbs	\$59.99
PDS-600 8-bit version without decode circuitry, 2 lbs	\$49.99

Wire-Wrap Prototype Boards

Our line of prototype boards features high quality .062" FR4 epoxy glass with .042" drilled holes and gold-plated edge connectors. Power and ground grid. 36/72-pin edge cards with .1" spacing.

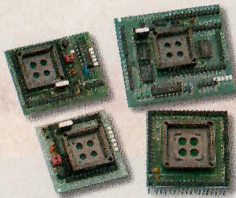


JDR-PR726 4.5" x 6.0", 1 lb	\$15.99
JDR-PR729 4.5" x 9.0", 1 lb	\$19.99
72P-ST Solder tail connector for above, 1 lb	\$1.99



PLCC Prototype Modules

CGN wire wrap sockets for PLCC and specialty sockets for 68HC11 (52-pin) versions. All include 3-level wire-wrap length pins on the bottom and probe access pins on the top.



Wire wrap carrier boards:

CGN-1001 For 68HC11 (PLCC)	\$18.99
CGN-1001-232 With RS232 for 68HC11 (PLCC)	\$24.99
CGN-1101-232 With RS232 for 68HC11	\$34.99

Wire wrap adaptor boards:

CGN-2001-CC20 For 20-pin PLCC (PLCC)	\$7.99
CGN-2001-CC28 For 28-pin PLCC (PLCC)	\$8.99
CGN-2001-CC32 For 32-pin PLCC (PLCC)	\$8.99

Wire wrap adaptors:

CGN-2001-CC44 For 44-pin PLCC (PLCC)	\$9.99
CGN-2001-CC52 For 52-pin PLCC (PLCC)	\$10.99
CGN-2001-CC68 For 68-pin PLCC (PLCC)	\$12.99

Predrilled Prototype Boards

Made of phenolic material, these breadboards are 1/16" thick and include 0.042" diameter holes on a 0.10" square grid. For versatility, material does not include copper plate or signal traces.

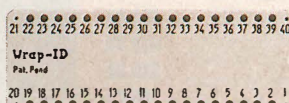


JDR-BB65 4.5" x 6.5" material, Sh. wt. 1 lb	\$6.99
JDR-BB17 4.5" x 17" material, Sh. wt. 1 lb	\$9.99



Socket ID Wraps

These socket ID wraps let you identify pin numbers instantly from the wrap side of the board. Plastic ID plates slip over IC socket pins on the wrap side of the board.



Part #	Pins	Pkg. of	Price
IDWRAP08	08	10	1.99
IDWRAP14	14	10	1.99
IDWRAP16	16	10	1.99
IDWRAP18	18	5	1.99
IDWRAP20	20	5	1.99
IDWRAP22	22	5	1.99
IDWRAP24	24	5	1.99
IDWRAP24SK	24*	5	2.49
IDWRAP28	28	5	1.99
IDWRAP40	40	5	2.99

*0.3" wide



Wrapping Tool

Indispensible for making neat, reliable wrapping connections!



- Strips, wraps and unwraps wire
- Designed for .025" square posts
- Designed for 30 AWG wire; 4-1/2" long

WSU-30 1 lb	\$23.99
WSU-30M 1 lb	\$24.99

As above, wraps one extra turn of insulation



30AWG Solid Wire Wrap Wire

Fully-insulated 30AWG solid Kynar wire on economical 100' and 1000' spools. 1 lb.



WJW30x 100' roll	\$3.99
WJW30x1000 1000' roll	\$29.99

To order: Select black (K), blue (B), brown (T), grey (D), green (G), orange (O), red (R), violet (V), white (W), or yellow (Y) insulation, by replacing the "x" in the part # with K, B, T, D, G, O, R, V, W or Y



Assorted Wrapping Wire



This handy assortment of wrapping wire includes the most common lengths required for projects.



- Fully-insulated, plated 30 AWG Kynar wire is pre-cut and pre-stripped 1" on each wire end
- Assortment includes:
 - 500 pieces each of 3.0", 3.5" and 4.0"
 - 250 pieces each of 2.5", 4.5" and 5.0"
 - 100 pieces each of 5.5", 6.0", 6.5" & 7.0"

30AKIT2 1 lb	\$49.99
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TECH TIP

When making your own Category-5 network cables, remember to use Category-5 connectors. Our part number is PH-8P8C5-10.

www.jdr.com

BASIC Stamp Modules

PARALLAX

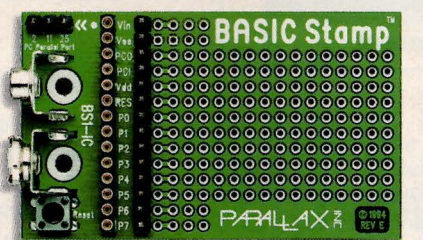
Ideal for small microcontroller-based development!

These modules are programmed in high-level BASIC to minimize development time. Each is designed with a power regulator, clock and EEPROM on-board. Digital I/O lines interface to the real world, and the BS2 includes a serial communications port.

- Programmed in easy-to-learn BASIC
- TTL I/O pins: BS1 - 8, BS2 - 16
- EEPROM bytes: BS1 - 256, BS2 - 2,048
- RAM bytes: BS1 - 14, BS2 - 26
- Instructions: BS1 - 80, BS2 - 500
- Clock speed: BS1 - 4MHz, BS2 - 20MHz
- Package: BS1 - 14-pin SIP, BS2 - 24-pin DIP
- BS2 includes serial port with high-level DTMF and X-10 control instructions
- Optional carrier board includes prototyping area, 9V battery clips, I/O header & reset button

BS1-IC 14-pin SIP module, 1 lb	\$34.99
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See page 94 for Basic Stamp Accessories

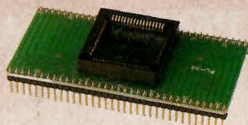


BS1-CARRIER 1 lb	\$14.99
Carrier board with prototyping area	
BS2-IC 1 lb	\$49.99
24-pin SIP module	
BS2-CARRIER 1 lb	\$19.99
Carrier board for prototyping area	
BASIC-PGM 1 lb	\$99.99
Programming software	
PBASIC 1 lb	\$89.99
Compiles 16Cxx family of PIC microcontrollers	



PLCC Adaptors

A PLCC socket is mounted on a circuit board for easy wire-wrap or design prototyping. Solder masked PCB with .25"L leads.



Part #	Description	Price
PL-20	20-pin PLCC adaptor	\$7.99
PL-28	28-pin PLCC adaptor	\$7.99
PL-32	32-pin PLCC adaptor	\$8.99
PL-44	44-pin PLCC adaptor	\$9.99
PL-52	52-pin PLCC adaptor	\$19.99
PL-68	68-pin PLCC adaptor	\$19.99
PL-84	84-pin PLCC adaptor	\$24.99

Jumper Wire Kit

Case includes 25 pieces each of 22-gauge jumper wire for solderless breadboards in .1, .2, .3, .4, .5, .6, .7, .8, .9, 1, 2, 3, 4 and 5" pin-to-pin lengths.



WJW-60B 1 lb\$9.99

WJW22x 22AWG solid jumper wire spools, 1 lb. \$3.99

To order: Select black (K), blue (B), grey (D), green (G), orange (O), red (R), violet (V), white (W), or yellow (Y) insulation, by replacing the "x" in the part # with K, B, D, G, O, R, V, W or Y.

Educational Project Kits

Power Supplies—Discusses power supplies, volts, amps, power sources, rectifiers, filters and transformer rectifier circuits.

PRO-1 1 lb\$17.99

Opto-Devices—Projects include a simple LED indicator, two logic probes, a binary number display, a 7-segment readout and an opto-coupler.

PRO-2 1 lb\$29.99

Clocks—Learn how to construct monostable & astable multivibrators, plus a voltage controlled oscillator.

PRO-3 1 lb\$11.99

Function Generators—Learn the in's and out's of function generators, output amplitude, amplitude modulation and pulse generation.

PRO-4 1 lb\$19.99

Gates: Logic Building Blocks—This kit describes how basic digital logic functions, including the inverter, OR, AND, NOR and NAND gates.

PRO-5 1 lb\$17.99

Counters—Learn about fundamental counter components, including D-type and J-K flip-flops.

PRO-6 1 lb\$17.99

Medium Scale Integration—Includes projects on the multiplexer, the de-multiplexer, the comparator and static memory.

PRO-7 1 lb\$31.99

Analog Circuits—Learn about inverting, non-inverting, summing and differential amplifiers.

PRO-8 1 lb\$11.99

Analog to Digital Conversion—Learn about basic analog to digital conversion and span adjustment.

PRO-9 1 lb\$17.99

Digital to Analog Conversion—Discusses digital to analog conversion, accuracy and resolution. Projects related to the binary ladder.

PRO-10 1 lb\$17.99

Solderless Breadboards

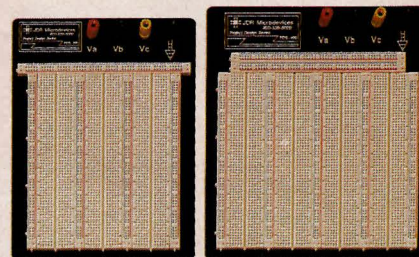
JDR's durable Project Design Series breadboards are suitable for nearly every type of circuit design work. Breadboards with binding posts have solid aluminum backing.

- Nickel-plated insertion clips for 22AWG solid-core wire rated for approximately 5000 insertions/removals
- Numbered rows simplifies prototyping
- Up to 2520 tie points

Part#	Size L x W	Dist. Strips	Term. Strips	Tie Pts.	Bind. Posts	Price
PDS-30	6.50" x 0.38"	2	0	0	0	\$2.99
PDS-70	6.50" x 1.38"	0	1	630	0	\$4.99
PDS-100	8.45" x 3.94"	1	2	1260	2	\$11.99
PDS-200	8.45" x 5.13"	4	2	1260	3	\$17.99
PDS-300	9.06" x 6.88"	5	3	1890	4	\$22.99
PDS-400	9.45" x 8.25"	7	4	2520	4	\$29.99

Shipping weight 2 lbs each

PDS-30 PDS-70 PDS-100 PDS-200



PDS-300

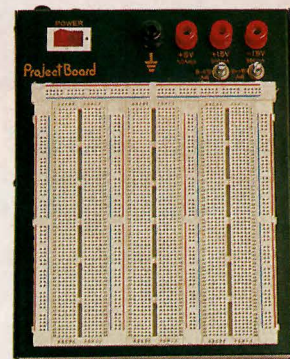
PDS-400

Breadboard with Power Supply

An essential prototyping tool for the hobbyist or professional! This solderless breadboard has three built-in power supplies. The sturdy metal frame anchors the breadboards and resists bending.

- 110VAC, 50/60Hz
- Built-in power supply provides +5V @ 1A, 0 to +15V @ 500mA, 0 to -15V @ 500mA
- 4 binding posts for power and over 2400 tie points for solid-core wire 22AWG
- Perfect for the hobbyist or electronics enthusiast
- 8"L x 10-1/2"W x 2-3/4"H

PDS-500 Breadboard with power supply, 2 lbs\$89.99



ProtoBoard Design Workstation

This workstation is ideal for students, hobbyists, technicians and more. It provides 2,520 tie points for circuit breadboarding, plus the most common interface components. Each device is securely mounted to the unit and connected via breadboard terminals. The included power supplies provide fixed 5V and two other variable supplies. Complete with sample circuit diagrams, including an audio amplifier, a set reset flip-flop made of NAND gates and a binary counter.

- For analog and digital prototyping applications
- 2,520 tie points available
- 8 logic probe circuits: 1.4V min, 20V max
- Function generator produces sine, square, triangle and square waves
 - 0 to 20V peak-to-peak
 - 0.1Hz to 100kHz in 6 ranges
 - 10mA max output, 600 ohms
- One fixed output 5VDC 1A power supply plus one positive and one negative variable output 2 to 15VDC power supply, each 0.5A maximum
- Two SPDT slide switches, 8 SPST DIP switches and two pushbutton-operated debounced switches



- Two female BNC connectors, 1k ohm and 10k ohm potentiometer and speaker
- 110VAC, 50/60Hz for power supply; 7"H x 19"W x 14"D

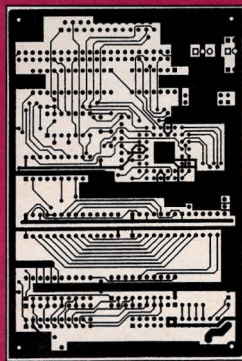
PB-503C 10 lbs\$349.99

PB-503 Desktop model without case, 8 lbs\$299.99

PCB Artwork Transfer Paper

From Design to Finished Board in Minutes!

Laser print or photocopy your circuit design onto this specially-coated paper, iron it onto a blank PC board and etch it as you normally would. In just three minutes you've quickly and easily created a custom PCB - perfect for prototyping and short production runs! The Toner Transfer System (TTS) features specially treated, letter-size, lightweight paper that can run through any laser printer or photocopier without jamming. The printed image on the paper is simply ironed onto a blank copper board, placed in a tray of water to remove the paper and then into the etchant. It's also perfect for creating custom faceplates, nameplates and decals. All your projects can look like they were professionally produced in a factory!



- Create instant printed circuit boards, professional-looking enclosures and full-color decals
 - Works with any laser printer or photocopier
 - No chemicals, negatives or darkroom necessary
 - Great for prototyping and hobby work
 - Use with any copper-clad PCB stock
 - Includes 10 sheets of 8-1/2" x 11" transfer material
- TTS-10 PCB Artwork Transfer paper, 1 lb\$27.99

Make Your Own Printed Circuit Boards

Produce your own printed circuit boards using positive process and eliminate the need for film negatives. This kit comes with three pre-sensitized circuit boards, chemicals, trays, rubber gloves and accessories. All you'll need to add is UV exposure bulb and a glass weight for your artwork.

- Quickly and accurately etch your designs
- Includes 3 pre-sensitized circuit boards (3" x 5", 4" x 6" and 6" x 6")
- Developer, Ferric Chlorid Etchant (17 oz. each) and trays (8 oz.) included

PCB-KIT 3 lbs\$29.99

Note: The chemicals used in this process are very hazardous. Wear eye and hand protection when using this kit!



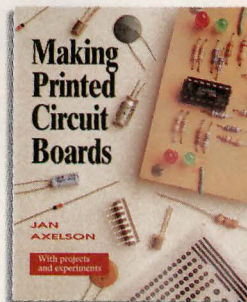
Making Printed Circuit Boards

Build your own printed circuit boards!

This book takes you step-by-step from schematic diagram to finished project. It is full of projects and experiments to help you build your own printed circuit boards using a few basic bench-top tools. You'll learn how to:

- Transfer artwork to PC blanks
- Etch copper patterns
- Drill holes for leads and mounts
- Use CAD software and photography to design circuits
- Make double-sided boards

TAB39519 327 pages, 2 lbs\$19.99



PC Board Stock

Blank double-sided copper-clad PC board stock available in FR-4 and CEM-1 material. Ideal for use with PCB artwork transfer system sold at left, or with other PCB manufacturing equipment.



PCB-FR-4X6 4" x 6" FR-4, 1 lb\$2.99

PCB-FR-6X12 6" x 12" FR-4, 1 lb\$6.99

PCB-CEM-4X6 4" x 6" CEM-1, 1 lb\$1.49

Conductive Pen

This handy pen lets you draw highly conductive traces on most surfaces—and it dries in just minutes!

- Link components, repair defective traces, make smooth jumpers
- Traces dry in minutes
- Can be soldered at low temperatures
- Holds approximately 100 ft. of material
- Self-cleaning tip reduces mess



PEN-2200 Sh. wt. 1 lb.....\$11.99

PEN-3300 Conformal Coating Pen, 1 lb\$11.99

EPOXY-2400 Cond. epoxy, .5 oz, 1 lb\$14.99

CW-7200 Carbon cond. grease, .12 oz, 1 lb\$7.99

CW-7100 Silver cond. grease, .23 oz, 1 lb\$11.99

Fax Toll Free!
1-800-538-5005

Derick's High Tech Corner



Derick Moore

LogicLab Explorer

The LogicLab Explorer is the tool I wish I had when I first began building things with digital ICs. I doubt that I would have missed the acrid smoke, burnt fingers and cost of miswired parts.

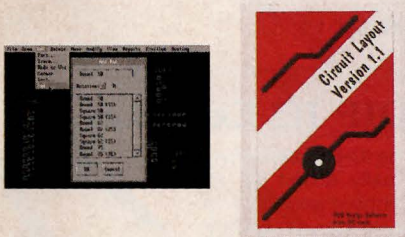
I know that I wouldn't miss the aggravation of wiring, rewiring and re-rewiring. And the money I saved on test equipment while trying to "see" what was going wrong in my experiments would certainly have gone to better purposes.

I am impressed with the ease of use, visual representations and analysis tools that come with the LogicLab Explorer. Without spending thousands of dollars on analyzers and oscilloscopes the user is provided with similar tools that get you familiar with their capabilities.



Circuit Layout SW Supports Toner Transfer Artwork

Design your own professional-quality single and double-sided circuit boards! Circuit Layout is an easy-to-use software geared toward small businesses and the individual electronic enthusiast. It lets you produce artwork with a personal computer and dot matrix or laser printer.



- Built-in design rules catch design errors
- Built-in support for "toner transfer" technology like our TTS-10
- Create additional template files using any of 32 different pad styles
- Provides a library of commonly used components and pads, multiple trace widths and reports for Net Lists, Hole Schedules and Design Errors

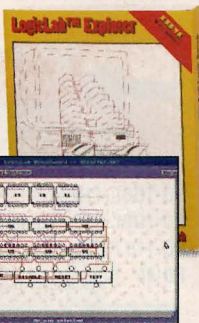
PL-PCB-CL DOS, 3-1/2" diskettes, 1 lb\$59.99

Digital Circuit Simulator Package

The LogicLab Explorer transforms your PC into a complete environment for "building," testing and simulating digital logic circuits. By giving you the simulated equivalent of a parts cabinet, a wire-wrap board and a logic analyzer, you can develop and test circuits without spending more money. This easy-to-use software includes drop-down menus, scrollable windows and on-line context sensitive help screens, plus you can expand the parts cabinet!

- Includes most common 74LS & CMOS ICs; over 1000 ICs can be placed on a single wire-wrap board
- LED and 7-segment displays light on-screen
- Programmable clock sources from 1ns to 500ms
- Logic analyzer includes 16 logic probes
- Each probe can be used to trigger based on state of transition
- Waveform includes continuous monitor capability
- Includes on-line data sheets for supported ICs
- Requires EGA or VGA video adaptor

JDR-LOGIC 1 lb\$49.99



Powerful PCB Design Software

The affordable schematic capture program includes a PC board design and layout system. Easily draw schematics and apply as many revisions as necessary. The software will check for design errors, produce parts lists, net lists, pin lists and more, making circuit designs less time-consuming.

- Up to 8 E-size sheets of logic in a single design
- Features standard part and symbol libraries, plus editor
- Automatically reroutes using "Smart Lines" during parts move
- Reports include parts list, net-list, loading, design verification and more
- Supports PC boards up to 80 square inches, with 6 layers and 8 masks each



- Reports include net lists, parts lists, connectivity check, board summary of pads used and more
- Supports 0.001 to 0.255 inch line widths

AMS-EZR-STD 2 lbs\$249.99

Standard edition for Windows, 5-1/4" diskettes

AMS-EZR-PRO 2 lbs\$569.00

Professional version for Windows, 5-1/4" diskettes

Ivex Schematic Capture/PCB Layout Bundle

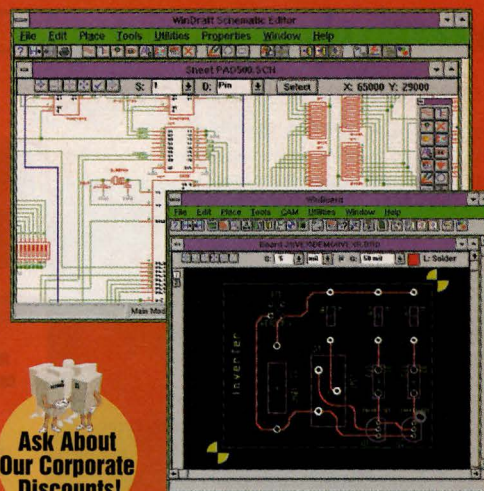
This affordable, user-friendly 32-bit software bundle provides powerful features to make designing faster. WinDraft schematic capture supports flat or hierarchical designs, guided wiring and context-sensitive editing. WinBoard PCB layout delivers sophisticated interactive routing for complex designs, plus it has the tools needed for high-speed circuits, analog designs and SMT boards.

Schematic Capture Module

- 32-bit Windows application with multiple document interface and floating toolbox
- Multiwire and referential connection capability
- Over 10,000 unique library parts included

PC Board Routing Module

- Supports 16 copper layers, plus 2 each silk screen, adhesive, solder mask & solder paste layers
- Over 70 on-line real-time design rule checks and reporting



www.jdr.com

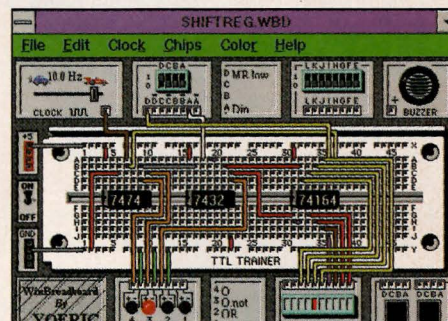
- CAM support includes BOM, in-circuit test, NC drill, Gerber, pick & place

IVEX-BUNDLE 3 lbs\$349.99

Windows Simulation Package

This full-color, three-dimensional Windows software representation lets you experience the look and feel of a real TTL breadboard trainer! Learn about electronic components with the included simulated trainer, clock function, dip switches, LEDs, 7-segment displays and a buzzer. Ideal for the student on a budget, WinBreadboard is an excellent, inexpensive learning tool.

- Great tool for learning/teaching digital electronics
- Learn TTL design in your Windows-based PC
- Simulated trainer with clock function, DIP switches, LEDs and more
- Students and electronic enthusiasts will appreciate the digital simulator and easy-to-use interface



YO-WBB Win, 3-1/2" disks, 1 lb\$59.99

Fax Toll Free!
1-800-538-5005

10-Piece Computer Tool Kit

Perfect for PC Component Installations

This is the one tool kit you'll reach for again and again! A handy, compact kit containing the tools you need for quick assembly and disassembly procedures. The slim vinyl case zips shut to protect all tools and keep them organized. All tools have been demagnetized to protect magnetic media.

- 3-claw component holder
- IC extraction tool
- Assembly tweezers
- Two straight-blade screwdrivers and two Phillips screwdrivers and one Torx-type screwdriver
- Two nut drivers (3/16" and 1/4")

TK-ELE 2 lbs\$19.99



Vinyl zippered case conveniently stores your tools in an organized fashion

Modular Crimp Connector Kits

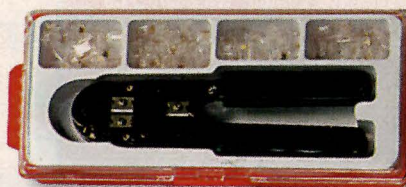
Complete with Connectors

These crimpers kits are perfect for network and telephone installations. Crimp tool crimps and strips standard modular flat cable. The HT-210A comes with ten 8P8C RJ45 connectors; the HT-2037 includes fifty 6P6C RJ11 connectors.

- Includes modular connector crimp tool and connectors
- Tool cuts and strips modular flat cable
- Economically priced, convenient to have

HT-210A 1 lb\$14.99
Crimper tool with ten 8P8C connectors

HT-2037 1 lb\$18.99
Crimper tool with fifty RJ11 connectors



Modular connectors and tool for custom telephone and network cable applications



ToolzAll Pro Multipurpose Tool

Puts Fourteen Tools in the Palm of Your Hand!

Every toolbox should have one! The Crescent ToolzAll Pro from Cooper Tools puts the power of fourteen tools in the palm of your hand. Blades, files, screwdrivers, rulers, pliers, wire cutter and more. Built of high-quality stainless steel, this multifunction tool is designed to last a lifetime.

- Drop point blade, wood file, metal file, lanyard and medium and large slotted screwdrivers
- English and metric rulers, regular and needle nose pliers and wire cutter
- Phillips screwdriver, serrated sheepfoot blade and a can/bottle opener

CX-TOOLZALL 1 lb\$38.99



NEW!

This universal tool is crafted of high-quality stainless steel

COOPER
CooperTools

PLCC IC Extractor

Spring-assisted chip extraction tool specially designed for safe removal of PLCCs from sockets without damage to the components. Insert steel tongs at socket corners and lift PLCC chips with a simple squeeze of the tool's grips.



EXT-PLCC 1 lb\$13.99

DIP IC Extractor

The IC-EXT extractor is ideally suited for the hobbyist and lab engineer alike. It extracts all DIP IC devices from 8 to 28 pins. One-piece spring steel construction.



IC-EXT 1 lb\$14.99

IC Pin Straightener

This spring-loaded device quickly straightens bent IC pins for quick and easy insertion into their sockets. Accepts all standard DIP ICs from 6 to 40 pins



ICX-01 1 lb\$9.99

Punch Down Tool

Impact punch down tool has replaceable blades for 110- or 66-block type. Installation blades have a reversible design with simultaneous cut option.



PD-TOOL-110 With 110-block blade, 1 lb\$49.99

PD-TOOL-66 With 66-block blade, 1 lb\$49.99

PD-110 Replacement 110-block blade, 1 lb\$12.99

PD-66 Replacement 66-block blade, 1 lb\$12.99

Order Toll Free!
1-800-538-5000

Fax Toll Free!
1-800-538-5005

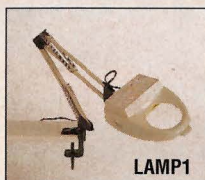
Deluxe Halogen Magnifier Lamp

This sturdy magnifier lamp is ideal for inspection, fine assembly, and other applications where magnifiers are used. Its distortion-free 3x lens provides a sharp view, edge to edge.

- Easy positioning of spring balanced arm with large tension knobs
- Deluxe hinged dust cover keeps lens clean and dust free
- AC adapter built into base
- All-metal construction
- Convenient extra power outlet on base
- Two way switch to control light intensity
- 100 watt halogen tube is included
- Includes mounting clamp & glass safety cover



LAMP3



LAMP1



LAMP2

LAMP3 7 lbs	\$59.99
LAMP1 3 lbs	\$29.99
With incandescent socket, 60 watt max bulb	
LAMP2 6 lbs	\$59.99
With circular 22 watt fluorescent light	



Tweezer Kit

This kit includes four different stainless steel tweezers for working with small hard-to hold components. Ideal for prototyping and working in small spaces.

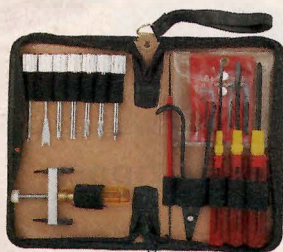


ATK-1 Sh. wt. 1 lb	\$8.99
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VCR Alignment Tool Kit

This kit features a VCR head-puller which helps prevent damage to the VCR and a set of alignment tools helps you restore your VCR to factory specifications.

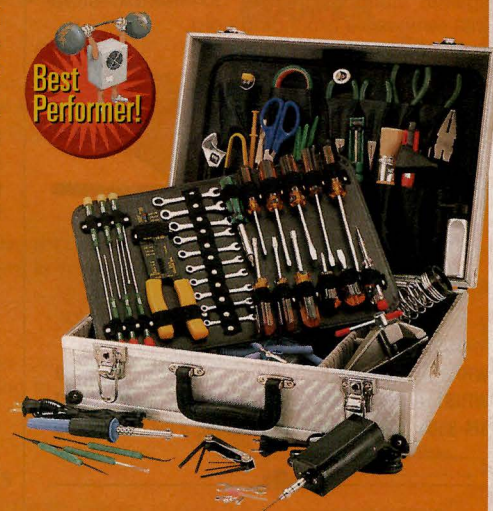


- 7 assorted head and guide alignment tools
- Reversible screwdriver bits; mini screwdriver and hex key set
- Includes zippered carrying case

TK318 2 lbs	\$34.99
TK8606 4-piece tuner alignment kit, 1 lb	\$4.99

Large Briefcase Tool Kit

This large selection tool kit is ideal for field repair technicians, the do-it-yourselfer or anyone who needs to keep a set of electronic tools with them while traveling. Use it for building, repairing and general maintenance. The heavy-duty molded case includes 2 surface-type locks, a durable handle, side buckles and a strap.



- Long nose pliers with cutters, bent nose pliers, long nose pliers and flat nose pliers
- 5-way crimping tool, 4-1/2" diagonal cutting pliers and stainless steel scissors
- 6" adjustable wrench, 10-piece mini combination wrench and 7 hex keys
- 11-piece screwdriver set and 6 precision long screwdrivers
- 5 miniature files, stainless tweezer and 3 prong holder
- 30-watt soldering iron, 3-piece solder aid kit, desoldering pump, rosin core solder, solder stand and electrical tape
- Utility components box, mini vacuum cleaner, antistatic strap and flashlight

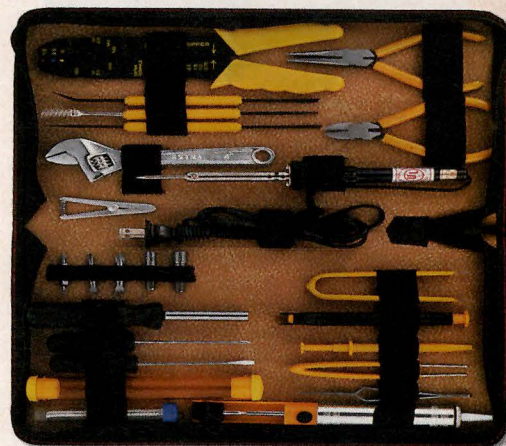
- Hobby vise, IC extractor, utility knife, mini drill and brush

GTK700 18"L x 14"W x 6"H, 17 lbs\$189.99

25-Piece Computer Service Tool Kit

This kit contains the tools most frequently needed to repair computers, printed circuit boards, peripherals and other electronic equipment. Zippered vinyl case.

- 30 watt soldering iron and a desolder pump
- 1 reel of solder and 3 soldering aid tools
- Heat sink to protect parts
- 4-1/2" diagonal cutter & 8" wire cutter/stripper
- 5" needle nose pliers; 6" crescent wrench
- 14 to 16-pin IC inserter, IC extractor and 3-claw part extractor
- Regular tweezers & reverse-action tweezers
- 3/16" and 1/4" screwdriver tips, #1 and #2 Phillips tips, 3/16" and 1/4" nutdriver tips, 1/8" flat screw-driver, #0 Phillips screwdriver and spare parts tube



TK-COM 3 lbs	\$39.99
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6-Piece Screwdriver Set

Since 1921, Xcelite has produced high-quality electronics tools renowned throughout the industry for their quality and durability. This screwdriver set includes four slotted screws and two phillips head screwdrivers in a handy storage pouch.

- Four standard and two Phillips screwdrivers in a plastic pouch
- Standard drivers have blade widths of 1/8", 3/16", 1/4" and 5/16"
- Phillips drivers have blade widths of 3/16" and 1/4"

CX-SRX-33 1 lb	\$27.99
6-Piece Screwdriver Set	

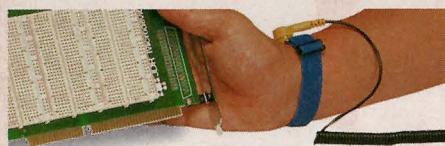


Xcelite



Anti-Static Wrist Strap

Protects ICs and other electronic devices against static discharge. Comfortable strap with removable grounding cord.

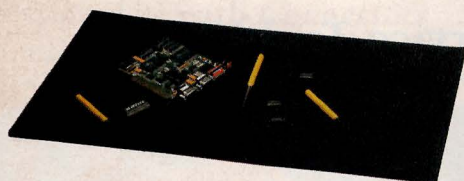


- Dissipates body-generated static
- Elastic adjustable wristband
- 5' coiled ground cord with alligator clip for quick disconnect

WRIST-STRAP 1 lb.....	\$6.99
WRIST-DISP Disposable one-time use, 1 lb.....	\$1.49
3M-8506 Field service anti-static kit, 3 lbs.....	\$39.99

Anti-Static Foam

This foam pad protects devices from static electricity and prevents leads from bending. 12" x 24" x 1/4" thick.



FOAM 1 lb	\$12.99
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Anti Static Bags

These conductive anti-static bags are economical, transparent and reusable. An interconnected conductive matrix creates an excellent shielding layer to protect electronic components from damaging electrostatic fields.

ASB-10X14 10" x 14", 100 per bag, 1 lb	\$24.99
ASB-6X10 6" x 10", 100 per bag, 1 lb	\$19.99
ASB-3X5 3" x 5", 100 per bag, 1 lb	\$9.99
ASB-5X8 5" x 8", 100 per bag, 1 lb	\$14.99

www.jdr.com

TECH TIP

Intel's Pentium Processor with MMX Technology has a core voltage of 2.8 and an I/O voltage of 3.3. A non-MMX processor has both a core and I/O voltage of 3.3. If your motherboard does not support these exact settings, choose the closest voltage, without going over. For example, if you are inserting a MMX processor and you motherboard has a core voltage setting for 2.72 or 2.9, use 2.72.

High Quality Digital Caliper

This caliper provides accurate inside, outside, depth, and step measurement of objects up to 6"/150mm long. Metal body with a hard heavy-duty case.

CALIPER-06 1 lb.....	\$49.99
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Tie Wrap Tool

This lightweight tool is fast and efficient. Simply place the tie-wrap tab in the tool and squeeze. After the tool has cinched the bundle tight enough, simply twist to remove the excess strap. For 18 to 50 lb straps.

TW-TOOL Tie wrap tool, 1 lb	\$9.99
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Nibbling Tool

This tool operates like a punch and die. It's a real timesaver when working on prototype models. It works well on .062" thick plastic and can cut, trim and notch aluminum or sheet metal up to 18 AWG.

NIBBLER 7-3/4" long, 1 lb	\$8.99
NBIT Replacement bit, 1 lb	\$3.99

Hemostats

These tools are made of durable stainless steel and are serrated for extra gripping power. Choose from four styles.

HEMO35 3-1/2" straight tip, Sh. wt. 1 lb	\$3.99
HEMO35C 3-1/2" curved tip, Sh. wt. 1 lb.....	\$3.99
HEMO55 5" straight tip, Sh. wt. 1 lb	\$4.29
HEMO55C 5" curved tip, Sh. wt. 1 lb	\$4.29

Coax Crimper

This professional hex-type ratchet crimping tool is designed for RG58 and RG59 coax cable. Made of durable high carbon steel, it's finished in black oxide and has plastic comfort grips.

HT-301A Rotary coaxial cable crimper, 1 lb.....	\$16.99
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Coax Stripper

Strip RG6/58/59/62 coaxial cable quickly and easily with this rotary coaxial cable stripper. It's spring-loaded for ease of use and includes an allen wrench for blade depth adjustment.

HT-302 Rotary coaxial cable stripper, 1 lb.....	\$9.99
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Precision Hand Tools

4-1/2" Diagonal Cutters

- 5/16" angled cutting blades

76-0231 1 lb	\$4.99
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5" Round Nose Pliers

- 3/4" rounded smooth blades

76-0232 1 lb	\$4.99
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5-3/8" Bent Nose Pliers

- 1-1/4" total blade length

76-0233 1 lb	\$4.99
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5-1/8" Long Nose Flat Plier

- 1-1/4" blade length, 5/8" serrated

76-0234 1 lb	\$4.99
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5-3/8" Long Nose Half-Round

- 3/4" total blade length

76-0235 1 lb	\$4.99
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IDC Connector Crimper

Making a custom floppy, IDE or SCSI ribbon cable? This tool ensures even crimping of IDC connectors to flat ribbon cable - a must for those making their own custom ribbon cables!

HT-214 2 lbs.....	\$14.99
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Wire Stripper/Cutter

This wire stripper cuts and strips 12 to 24 gauge wire. Set the wire size rotating dial for proper gauge and it's ready for use. Cushioned grips and spring-loaded design is easy on your hands.

HT-107 Wire stripper/cutter, 1 lb	\$2.49
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D-SUB Crimping Tool

This tool is perfect for crimp-style D-SUB pins and sockets. Tool provides good clean connections for your D-SUB applications.

HT-213 D-SUB crimping tool, 1 lb.....	\$9.99
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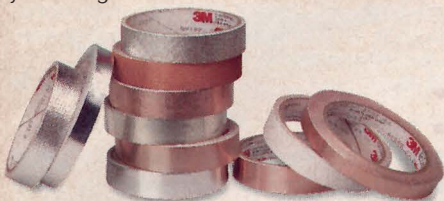
Crimper/Stripper

This general purpose crimp and strip tool can be used with solderless connectors and terminators. Can cut and strip wire for 10 to 22 AWG.

CRIMP-STRIP Crimper/stripper, 1 lb	\$7.99
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EMI Shielding Kit

This EMI shielding kit contains nine rolls of quality 3M tape in varying resistances and backing materials. Each roll is 3/4" wide by 4 yards long.

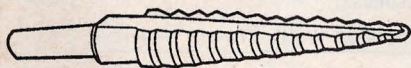


3M-ESK	3M EMI shielding kit, 2 lbs	\$49.99
3M-1170	Aluminum shielding tape, 1 lb	\$16.99
3M-1245	Copper shielding tape, 1 lb	\$16.99
3M-1700	3/4" black electrical tape 60' roll, 1 lb	\$6.99
3M-35G	3/4" green electrical tape 60' roll, 1 lb	\$3.99
3M-35R	3/4" red electrical tape 60' roll, 1 lb	\$3.99



Multiple-Hole Step Bits

- Self-starting tip resists walking or skidding
- Balanced, double-flute construction requires less pressure
- Cuts through up to 30-gauge mild steel, copper, plastic and laminates



Part #	Overall length	Bit size	Sh.wt.	Price
GL34401	3-1/8"	1/2"	1 lb	24.99
GL34403	3-5/16"	7/8"	1 lb	34.99
GL36413	2-1/4"	1-1/8"	1 lb	46.99
GL36414	2-7/8"	1-3/8"	1 lb	59.99



Xcelite Tool Kit and Case

For Technicians and Field Service

This large assortment of tools includes 53 separate high-quality Xcelite hand tools, 31 Series 99 interchangeable screwdriver and nutdriver blades with handles and 2 specialized screwdriver and nutdriver kits. Tools are neatly mounted in pockets with enough space to carry your DMM, cable tester or other small test equipment.

- 100-piece tool kit includes the most popular hand tools from Xcelite
- Includes spacious aluminum tool case
- Removable 3-panel hinged tool pallet in lid
- Roomy file pocket in lid for service manuals, circuit diagrams or other literature



Xcelite®

CX-TCMB-100ST	15 lbs	\$719.00
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Xcelite by Cooper Tools

COOPER

CooperTools

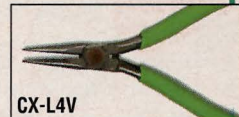
The Tools That Work as Hard as You

CooperTools is well known for their quality lines of tools for electronics, manufacturing, electrical, home and hobby projects. From pliers and wrenches to soldering and heat guns, CopperTools can help to get the job done right.

4" Needle-Nose Pliers

These pliers provide a positive grip on fine wire and subminiature components. The fine point allows you to use them in very confined areas.

CX-L4V	4" Needle-Nose Pliers, 1 lb	\$11.99
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CX-L4V

Stripper/Cutter Pliers

For all types and sizes of wire, this handy tool combines a cutter/stripper with a pliers nose. The pivot joint bushing and crimp stations are hardened for exceptional durability.

CX-104CG	Stripper/Cutter Pliers, 1 lb	\$21.99
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CX-104CG

4" Stainless Diagonal Cutters

These precision-machined cutters are ideal for tip cutting in delicate circuitry work. For cutting soft non-ferrous wire and smaller soft steel wire.

CX-117CG	4" Stainless Diagonal Cutters, 1 lb	\$46.99
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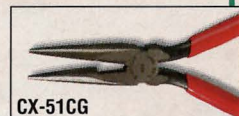


CX-117CG

6" Long Nose Pliers w/Cutter

The serrated jaws of these pliers makes them perfect for firm gripping and looping of wire. Features a convenient side cutter & cushioned grips.

CX-51CG	6" Long Nose Pliers, 1 lb	\$16.99
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CX-51CG

Tongue and Groove Pliers

Great for general-purpose use, these pliers feature angled serrated teeth in the jaws and forged alloy steel construction. Solid 4-position machined rib lock design.

CX-53CG	Tongue and Groove Pliers, 1 lb	\$10.99
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CX-53CG

4" Diagonal Cutters

Excellent for work in close quarters, these durable cutters feature standard beveled edges. The cushioned grips provide maximum leverage for tough cuts.

CX-54CG	4" Diagonal Cutters, 1 lb	\$15.99
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CX-54CG

10-Piece Compact Nutdriver Set

A very durable set of nutdrivers in sizes from 3/32" to 3/8", packed in a handy storage case. Also includes "piggyback" torque amplifier handle for tough nuts.

CX-PS120	10-Piece Compact Nutdriver Set, 1 lb	\$29.99
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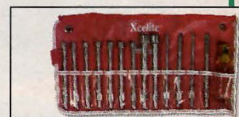


CX-PS120

14-Piece Screw/Nutdriver Set in Roll Case

A very useful, multi-purpose 14-piece nutdriver and screwdriver set, constructed of hardened, tempered high-quality steel. Packed in a canvas roll case for compact storage.

CX-99PR	14-Piece Screw/Nutdriver Set, 2 lbs	\$59.99
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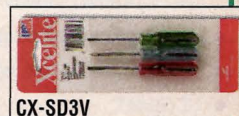


CX-99PR

3-Piece Pocket Screwdriver Set

Two straight-blade and one Phillips head screwdrivers with pocket clips. Color-coded handles for easy selection of the right tool.

CX-SD3V	3-Piece Pocket Screwdriver, 1 lb	\$6.99
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CX-SD3V

7-Piece Electronics Screwdriver Set

You'll appreciate the quality of this screwdriver set. It contains four slotted and three Phillips head precision screwdrivers in a variety of point sizes.

CX-XP700	7-Piece Electronics Screwdriver Set, 1 lb	\$23.99
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CX-XP700

6" Adjustable Wrench

This rugged wrench offers quick one-hand adjustment for odd-sized nuts and bolts. The cushioned grip provides maximum leverage.

CX-46CG	6" Adjustable Wrench, 1 lb	\$14.99
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CX-46CG

Universal Solder Gun Kit

Great for all types of jobs, this kit includes a 140/100W gun with fingertip heat selection, illuminating light and pure copper tip. Comes with an assortment of tips, solder tools, solder and a sturdy carrying case. UL listed.

CX-8200PK	Universal Solder Gun Kit 140/100W, 4 lbs	\$34.99
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CX-8200PK

www.jdr.com

ISO-TIP Cordless Soldering Iron

This iron is ideal for field service technicians and hobbyists alike. The isolated tip prevents damage caused by electric current. Plus, a convenient work light illuminates tight, cramped areas for greater convenience.



- Fully recharges in less than 4-1/2 hours
- Isolated tip reduces chance of electrical current damage
- Solders up to 125 joints per charge
- Convenient work light makes soldering easier
- Complete with fine and heavy-duty tips
- 110VAC, 50/60Hz input power
- Includes iron, charging stand, wall transformer and battery

WAHL-7700 2 lbs	\$39.99
7545 1/6" fine tip, 1 lb.....	\$3.99
7546 3/16" heavy-duty tip, 1 lb	\$3.99



Heat Gun

The CX-1095 is an economical, dual temperature heat gun. This handy tool has many uses in the home workshop or manufacturing. Use it for applying heat shrinking products, thawing frozen pipes, stripping paint, curing epoxy or softening adhesives.



- Dual temperature 1200°F (1000W) and 790°F (400W); 3-way switch: Hi - Off - Low
- 3-wire grounded plug 6" power cord
- Lightweight, 22 oz. with cord
- UL listed

CX-1095 Dual range heat gun, 1 lb	\$49.99
CX-1082 Heat deflector for CX-1095, 1 lb	\$5.99



Heat Shrink Tubing

Ideal for insulating exposed conductors or replacing common electrical tape. Slip a piece over your connection, apply heat, and material shrinks to a tight fit. U/L recognized and CSA certified.



- FP-301 black split-resistant flexible Polyolefin
- 121° C shrink temperature at 2:1 shrink ratio
- 4-ft. lengths; pre-shrunk diameter indicated

FP364 3/64"	\$.99	FP316 3/16"	\$1.39
FP116 1/16"	\$1.09	FP14 1/4"	\$1.79
FP332 3/32"	\$1.19	FP12 1/2"	\$2.29
FP18 1/8"	\$1.29	FP1 1"	\$4.19

Solder Accessories

Solder Tip Tinning Compound

Re-tin your soldering tips with this compound from Kester.

KESTER-TIN 1 lb.....	\$4.29
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Solder Wick

60" long braided copper lead. Absorbs solder when heat is applied using capillary action.



SW-105 1.5mm wide, 1 lb	\$.99
SW-200 2.0mm wide, 1 lb	\$.99
SW-205 2.5mm wide, 1 lb	\$.99

Soldering Tool Kit

This kit has the specialized tools you need for soldering: a heat sink to protect your heat-sensitive devices, knife and brush tool, scraper and hook, fork and spike.



SA-2 1 lb	\$4.99
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Soldering Iron Stand

Holds hot soldering iron in a convenient position. Stable metal soldering iron stand has a cooling tray and sponge for easy cleaning.



TSH-007 1 lb	\$3.99
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Desolder Pump

This durable aluminum, inexpensive desolder pump provides suction precisely where needed.

- Disassembles for easy cleaning; nozzle cleaner included
- Anti-static tip protects static-sensitive circuits



1000AS 1 lb	\$4.99
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Adjustable Soldering Clamp

This handy clamp leaves both of your hands free for soldering. Order a few of these for your next big project!



TSH-005 2 lbs	\$4.99
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1 lb Spools 60/40 Solder

This 60/40 activated rosin core solder is designed for the most common electrical and electronic work. Its flux residue is non-corrosive and electrically non-conductive. At this low price, you can afford to keep a roll in your toolbox, on your workbench and at your manufacturing workstation.

- .025", .031" or .05" 60/40 Rosin Core
- 1 lb. roll

SDR-025 .025" Rosin Core, 60/40 solder, 1 lb.....	\$6.99
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SDR-031 .031" Rosin Core, 60/40 solder, 1 lb.....	\$6.99
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SDR-050 .050" Rosin Core, 60/40 solder, 1 lb.....	\$6.99
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Kester Solder

All-Purpose Solder



60% tin, 40% lead rosin core solder. 1 lb spool.

KSTR-025 0.025" diameter, 1 lb	\$10.99
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KSTR-031 0.031" diameter, 1 lb	\$10.99
--------------------------------------	---------

KSTR-050 0.050" diameter, 1 lb	\$10.99
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Low Temp Solder

Using 63% tin and 37% lead, this solder melts at a chilly 361 degrees Fahrenheit—about 60 degrees cooler than many craft solders! 25 gauge 0.020" diameter 1 lb spool.

SLDR6337 1 lb	\$14.99
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Solder with Water Soluble Flux

Simply rinse your PC boards in water to remove the flux residue! Effective for copper, nickel, brass and solder-coated metals.

SLDR6403 1 lb	\$9.99
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Water soluble, 63% tin 37% lead .031" diameter

Computer/Electronic Solder

SLDR5055 Sh. wt. 1 lb	\$1.59
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60% tin 40% lead alloy, 1 oz.

SLDR8371 Silver solder, Sh. wt. 1 lb	\$3.39
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62% tin 36% lead 2% silver alloy, 1 oz

SLDR6664 Sil-strong silver solder, Sh. wt. 1 lb	\$2.39
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96% tin 4% silver alloy, 1 oz

SLDR327 TV/Radio solder, Sh. wt. 1 lb	\$1.19
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40% tin 60% lead alloy, 1 oz

Kester Kwik-Draw

Dispenses 60/40, "44" resin flux core solder (0.050" dia.). 1.3 oz.

SLDR8330 Sh. wt. 1 lb	\$1.49
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SLDR8340 Sh. wt. 1 lb	\$1.49
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Kester Pocket Pak - pencil-sized holder dispenses 60% tin 40% lead alloy. 0.031" dia., .5oz.

Tinning Block

Solid block of sal ammoniac simultaneously cleans and tins your soldering iron tip! The tip will not only last longer, but also make better solder connections. 1/2 lb block.

SLDR51 Sh. wt. 1 lb	\$4.99
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Flux

SLDR44 Sh. wt. 1 lb	\$1.09
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SP44 rosin paste flux for brass or nickel, 2 oz.

Order Toll Free!

1-800-538-5000

Soldering Iron

Our 7-1/2" soldering iron is ideal for precision work and general purpose soldering. Lightweight stainless steel barrel with 1-1/4" removable tip. 30W, 115VAC; U/L approved.



HA-4 2 lbs\$4.99

Desoldering Pump

One-handed desoldering pump combines a self-contained vacuum pump and heating element. 10-1/4" long; 115VAC; .059" nozzle.



DSLD-115 2 lbs\$29.99

DSLD-T1 .059" Replacement tip, Sh. wt. 1 lb\$4.99

DSLD-T2 .047" Replacement tip, Sh. wt. 1 lb\$4.99

Replacement Weller Tips

Is your current soldering tip too big, too small or just the wrong shape? Purchase genuine Weller tips and you'll be prepared for upcoming projects! Shipping weight 1 lb.

For the WTCPT

PTHx .03" Chisel\$5.99

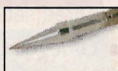
PTAx .06" Chisel\$5.99

PTCx .12" Chisel\$5.99

PTPx .03" Conical\$5.99

PTOx .03" Long conical\$5.99

PTSx .01" Long conical\$5.99



PTHx

Note: Replace x in part number with desired temperature, 7 for 700 or 8 for 800 degrees Fahrenheit

For the EC10021

ETA .06" Chisel\$5.99

ETB .09" Chisel\$5.99

ETC .12" Chisel\$5.99

ETK .04" Long Chisel\$5.99

ETR .06" Narrow Chisel\$5.99

ETP .03" Conical\$5.99

ETS .01" Long conical\$5.99

ETO .03" Long conical\$5.99



ETR

For the WLC100

ST7 .03" Conical\$5.99

ST6 .03" Chisel\$5.99

ST1 .06" Chisel\$5.99

ST2 .09" Chisel\$5.99

ST3 .12" Chisel\$5.99

ST4 .18" Chisel\$5.99

ST5 .03" Flat tip\$5.99

ST8 .06" Narrow Chisel\$5.99



ST7

For the 4024IL/4624IL

9010 .01" Precision tip\$8.99

9012 .05" Chisel tip\$8.99

9013 .06" Spade tip\$8.99

9015 .07" Screwdriver\$8.99

9050 .02" Conical\$8.99



9013

Other Weller/Ungar Accessories

2047 Secondary filter\$12.99

4082IL Glass solder chamber\$29.99

4091 Stainless wire brush\$13.99

4092 Nylon bristle brush\$8.99

Other tips available, please call



4082IL Glass tube

Replacement Solder Sponges

Tip-cleaning real sponge (not synthetic) with slitted design fits most soldering stations. Water expands sponge to 3"x3".



TC205 1 lb\$1.49

Weller WLC 100 Soldering Station

\$39⁹⁹

This soldering station with variable power control is ideal for serious hobbyists, do-it-yourselfers and students. It provides higher soldering performance than a gun or iron, but it doesn't cost as much as an industrial station. The adjustable output lets you adjust the iron's characteristics to your specific work — less power for fine PC traces and more power for heavy wires.

- Lightweight pencil iron with cushioned grip
- Adjustable power control from 5 to 40 watts
- Stand features natural sponge tip cleaning pad
- Iron holder with metal safety guard to prevent burns



- Complete with 0.12" screwdriver tip
- 110VAC, 50/60Hz input power, U/L approved

WLC100 2 lbs.....\$39.99

Weller® 921ZX1 Soldering Station

Weller's temperature-controlled soldering iron maintains a consistent temperature electronically. Use a lower temperature for delicate PC traces and a higher temperature for heavy wire and connectors. The iron employs a cool, cushioned handle. Uses ceramic heater.

- Temperature control from 550 to 8500 F
- Lightweight 24-volt pencil iron is ESD safe
- Calibration and external fuse access for simplified maintenance
- Metal safety guard prevents burns
- Complete with 1/20" screwdriver tip
- U/L approved for safety
- 110VAC, 50/60Hz input power

921ZX1 5 lbs\$129.99



Solder/Desolder Station

This complete solder/desolder station is designed primarily for lab, production, rework and repair applications. It features separate pencil-shaped solder and desolder irons whose temperature can be individually and precisely controlled. The ESD-safe design protects your parts from damage and meets or exceeds military specifications. Two built-in safety guards hold the irons.

- Lightweight pencil-shaped solder and desolder irons
- ESD-safe to protect static-sensitive parts
- Adjustable soldering temperature from 5500 F to 8500 F
- Desoldering temperature adjusts from 4500 F to 8000 F
- Complete with tips, sponge, tray and detailed manual
- U/L approved for safety
- Meets US Military solder specifications: MIL-STD-2000, DOD-STD-2000-1B, WS-6536E and MIL-S-45753E



- 110VAC, 50/60Hz input power

4624IL Solder/desolder station, 8 lbs\$699.00

4024IL Desolder station*, 6 lbs\$549.00

9931AS General replacement iron, 2 lbs\$89.99

9911AS Fine replacement iron, 2 lbs\$89.99

5088AS Replacement desolder iron, 3 lbs\$199.99

*Tips, sponge and tray not included.

Precision Oscilloscopes

Our latest oscilloscopes from GoldStar combine quality and economy with the everyday features you need to be productive. The large 6" display provides a clear view of your signal, while the 1mV per division sensitivity allows you to examine most signals. Trigger level control and variable holdoff stabilize your display for improved readability.

- 6" high luminance rectangular display
- Sensitive 1mV/division dual trace display
- Max sweep time 20ns/division
- Trigger level control and variable holdoff
- Separate circuit for television synch for Z axis input

GS9020A 20MHz version, 22 lbs\$399.99



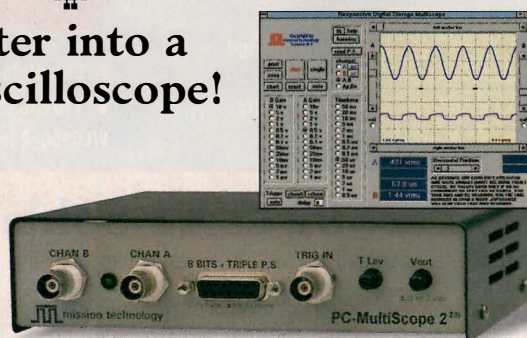
GS5040A 22 lbs\$699.00
40MHz version with delayed sweep and illuminated display

GS5100 25 lbs\$999.00
100MHz version with max sweep time 10ns/division, delayed sweep, alternate trigger and illuminated display

Turn Your Computer into a Digital Storage Oscilloscope!

Now your computer can be used as a dual channel digital storage oscilloscope, spectrum analyzer and transient recorder! The PC-MultiScope 2 comes with Windows compatible software and connects to the parallel port of any 386 or higher PC. Store signal data for us with Excel or your favorite Windows program.

- 20MHz maximum sampling rate
- 1 millivolts/division to 10 volts/division
- Internal or external triggering modes
- Includes parallel port cable and BNC alligator clip probe

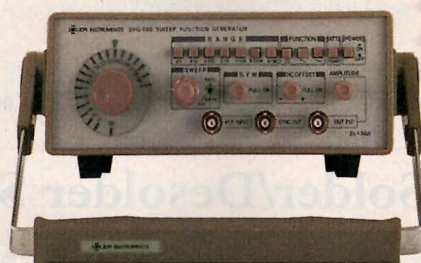


- 110VAC, 50/60Hz input power
- PC-MULTI2** 3 lbs.\$399.99
PCM2-SRC Source code, 1 lb\$99.99
PC-EXT Multiscope with external trigger, 5 lbs \$439.99

Digital Function Generator

This sweep function generator produces signals in 7 ranges with low distortion. Each tuning range provides 1000:1 frequency control.

- Range: 0.02Hz to 2MHz in 7 ranges, 0 to ± 12 VDC
- Triangle, sine, square root, TTL square root, pulse, ramp and skewed sine wave output
- Distortion: Triangle wave: <1% for 0.2Hz to 100kHz Sine wave: <2% for 10Hz to 100kHz
- 0.5Hz to 50Hz linear sweep rate and 10:1 to 1000:1 sweep width
- 100:1 frequency control per range
- 8-1/2"L x 10"W x 3-1/4"H



DFG-600 8 lbs\$239.99
DOS-600 Audio oscillator & counter, 8 lbs.....\$229.99

1.2GHz Handheld Frequency Counter

This compact frequency counter features an 8-digit display! Use the included antenna to measure radiated energy or plug your probe into the BNC connectors to measure a specific signal. A rechargeable battery and charger are included.

- Frequency range 10Hz to 1.2GHz
- Input impedance 50ohms for 20MHz or less, 1Mohm for 20MHz or greater
- 8-digit .3" display using red 7-segment LEDs

- Gate time 2.5, 0.25 or 0.02 seconds
- Rechargeable battery & charger
- Complete with antenna for radio frequency measurements
- Unit is 1-3/8"H x 3-1/4"W x 5-5/8"D

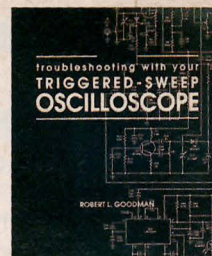
WFC-308 3 lbs\$169.99



Troubleshooting with Your Triggered-Sweep Oscilloscope

This guide saves hours of troubleshooting time and helps get the most out of your triggered-sweep oscilloscope. Included are:

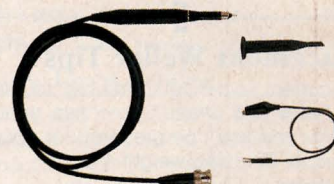
- Spectrum analysis
- Test applications
- Storage
- Multiple-trace displays
- Triggering
- Waveform analysis



TAB38911 320 pages, 1992, 2 lbs\$19.99

Oscilloscope Probe

Insulated pen-sized probe is finely balanced and well insulated.



- Three settings: 1X, REF, 10X
- Grounding clip and 4-foot cord
- Micro-hook tip included for safe in-circuit testing

OS-PROBE 1 lb\$19.99

Logic Probe

Detect signal transitions within your circuits. Can be used with Pulser Probe.

- Input Impedance: 1 M Ω
- Max Freq: 17MHz, Min Pulse Width: 30ns
- Logic 1: TTL 2.3V \pm 0.2V, CMOS 70% Vcc; Logic 0: TTL 0.8V \pm 0.2V, CMOS 30% Vcc
- Overload protection: \pm 220V DC/AC
- 6-1/2"L x 3/4"W x 1"H

LP-100 1 lb.....\$17.99
LP-200 Pulser probe, 1 lb\$19.99



Portable IC Tester

Hand-held IC tester reduces development time, identifies unmarked parts.

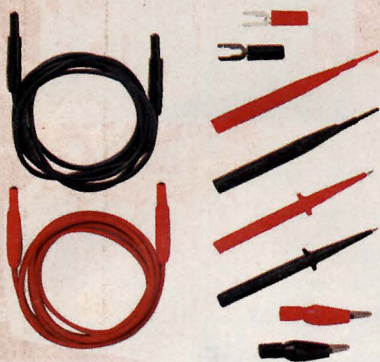
- Supports common 74 series TTL, 40 and 45 series CMOS and 256k and 1M DRAM
- ZIF socket accepts DIPs up to 20-pins
- 16-character LCD displays test results and can identify unknown devices

MOD-HIC 2 lbs.....\$149.99
MOD-HIC-PW Optional AC adaptor, 4 lbs\$4.99



Multimeter Lead Set

This handy set features alloy plugs for longer life and low contact lead resistance for accurate measurement. Includes 5-foot cables.

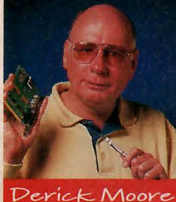


- Two cables with standard probes, hook probes, alligator clips and spade plugs
- Banana plugs at both cable ends have spring-loaded sleeves for safety and convenience
- Maximum voltage: 1000 Vrms
- Maximum current: 10 amps

TLSS2000 1 lb\$34.99

www.jdr.com

Derick's High Tech Corner



Will You Be Ready?

This isn't a question about processors, memory or hard disk capacity. I'm asking if "you" will be ready for next roll out of improved operating systems. If you are one who approaches major change as an ordeal to be dealt with, I have a few suggestions that may be helpful.

First, don't allow yourself to get swept along with the crowd of bleeding-edge adopters. Let them find the bugs and download the service packs and fixes. Everybody likes new toys, but it takes a real masochist to enjoy a broken toy.

Next, ease into the conversion, particularly if you have work to do that can't tolerate the problems that occur during a major transition. If, for example, you are using Windows NT 4.0 and want to adopt the new features of NT 5.0, create an alternate boot partition for 5.0. This will allow you access to the new platform and permit a quick reboot to the previous working environment when real work must be done.

Finally, read a book or take a course! I know how busy you are, and how helpful the "Getting Started" tips can be, but the fastest way to get ramped up with a new OS is often accomplished with a little help. Even the most aggressive adopter will miss small, helpful details if they try to learn without outside help.

3-1/2 Digit Multimeter

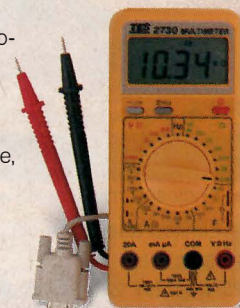
This full-function digital multimeter lets you write custom programs, even in BASIC, to read and record data via the serial port. This DMM measures AC & DC voltage, current, resistance, capacitance, frequency, diode and continuity. It even includes a K-type thermocouple input to measure temperature!

- 3-1/2 digit LCD display with 5/8" tall digits
- 27 ranges
DC Voltage: 10 μ V - 1000V
AC Voltage: 10 μ V - 750V
DC Current: 100nA - 20A
AC Current: 100nA - 20A
Resistance: 0.1 Ω - 20M Ω
Capacitance: 1pF - 20 μ F
Frequency: 1Hz - 2MHz

Includes PC-Compatible
Serial Ports

- Diode and audible continuity tests, data hold, K-type thermocouple input and more
- Basic DC accuracy +/- 0.5%
- Includes test leads, RS-232C cable, spare fuse, carrying case, PC compatible software and manual
- 7"H x 3-1/4"W x 1-1/2"D

DMM-2730 3 lbs\$149.99



Full-Function Digital Multimeter

This 3-1/2 digit DMM offers a host of features in 59 ranges. Test AC and DC voltage, AC and DC current, resistance, capacitance, temperature and more! The large 3-1/2 digit display makes reading measurements easier, plus the DMM includes a K-type thermocouple, test probes, a battery and instructions.

- 3-1/2 digit LCD display, 0.8" tall characters
- 59 ranges:
DC voltage: 100 μ V - 1000V
AC voltage: 100 μ V - 700V
DC current: 1 μ A - 20A
AC current: 10 μ A - 20A
Resistance: 0.1 - 200M Ω
Capacitance: 1pF - 20 μ F
Temperature: -50 - 500°C



- Basic DC accuracy +/- 0.5% of reading
- Transistor hFE, diode and audible continuity tests
- Includes test leads, K-type thermocouple, 9V battery and instructions

DMM-9303 2 lbs\$39.99



Pocket Digital Multimeter

This handy digital multimeter is well-suited for hobbyists and technicians alike, providing readings in the most common ranges.

- 3-1/2 digit 0.5" LCD display
- 11 Ranges:
DC voltage: 1mV - 400V
AC voltage: 100mV - 400V
DC current: 100nA - 200mA
Resistance: 1 - 2M ohm
- Basic DC accuracy +/- 0.8% of reading
- Tests diodes at 0.8mA maximum
- Incl. leads, 9V GP10A battery, instructions

DMM-188 2 lbs\$19.99



Variable Power Supplies

Test your circuit's actual performance at various voltages and you'll know what to expect in worst-case scenarios.

- Output voltage: 0 to 30VDC
- Output current independently adjustable, 0 to 3A
- Course and fine voltage controls
- Available with analog or digital display
- Ripple less than 1.5mV peak-to-peak
- Banana and screw power connections
- 110/220VAC input, 50/60Hz
- Size 6"H x 5-1/8"W x 10-3/4"D

GP-4303D With digital display, 11 lbs\$199.99
GP-4303A With analog display, 11 lbs\$189.99



Digital Multimeter

This low-cost multimeter includes 19 ranges. Use it to measure voltage or current — it even checks transistor hFE. Ideal for tool boxes with limited space.

- 3-1/2 digit 0.5" LCD display
- 19 Ranges: DC voltage: 100 μ V - 1,000V AC voltage: 100mV - 750V DC current: 100nA - 10A Resistance: 0.1 - 2M ohm
- Basic DC accuracy +/- 0.5% of reading
- Diode and transistor hFE tests
- Includes test leads, 9V battery, instructions

DMM-150 2 lbs\$29.99

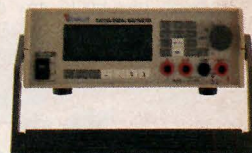


RS-232 Bench DMM

Let your PC compatible system record data with this benchtop digital multimeter.

- PC compatible RS-232C serial interface
- 3-1/2 digit 5/8" LCD display
- 27 Automatic and Manual Ranges
- Includes test leads, DB09P-DB09S RS-232C cable and PC compatible Windows software
- 110/220VAC, 50/60Hz input
- 3-1/2"H x 10"W x 10-3/4"D

DBM-3750 5 lbs\$199.99



133 Watt Switching Supply

- +5V @ 16.1A,
+12V @ 4.0A,
-5V @ 0.3A,
-12V @ 0.3A



- 6.25"L x 7"W x 4"H
 - 110VAC @ 50/60Hz input
 - Enclosed metal case with HP-style input
 - Limited quantities; U/L and CSA approved
- PS-6490 4 lbs\$9.99
PS-45842291 220VAC version, 4 lbs\$9.99

83 Watt Supply for Apple II



- +5V @ 6A, +12V @ 3A, -5V @ 1A, -12V @ 1A
 - 9.5"L x 3.5"W x 2.13"H
 - Replaces original Apple II, II+ and IIe supplies
 - Includes 14" cable and 6-ft power cord
- PS-A 3 lbs\$59.99

Cigarette Lighter Adapter

This adapter converts standard 12V cigarette lighter power into 3-12V output. A 4-way star-style plug and a 9V battery snap are included.



- Outputs 3, 4.5, 6, 7.5, 9 or 12VDC
 - 800mA maximum output current
 - Star-style adapter and 9V battery snap included
 - Polarity reversing switch & 6' molded cable
- CIGADAPTER 1 lb\$4.99

9V to 5V Regulator Kit

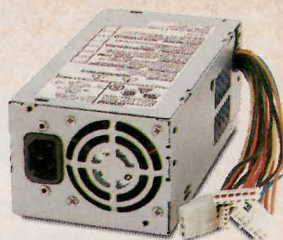
Snap this kit to any charged 9V battery and get a regulated 5VDC power supply! Simply solder the components together and connect the provided alligator clips to your circuit.



- Regulated 5VDC output, 100mA max
 - Snaps to standard 9V batteries
 - LED indicates power status
 - Alligator clip outputs
- 9TD5 1 lb\$9.99

73 Watt Switching Supply

- +5V @ 10A,
+12V @ 1.5A,
-5V @ 0.3A,
-12V @ 0.3A



- 6.8"L x 3.8"W x 2.8"H
 - 100-240VAC @ 50/60Hz input
 - Enclosed metal case with HP-style input connector
 - Limited quantities; U/L and CSA approved
- PS-SMP80HB 3 lbs\$24.99

110/220 VAC Step Up/ Down Transformers

Run 110VAC devices on 220VAC power, or 220VAC devices on standard 110VAC systems. Plug your device into the transformer, then plug the transformer into the wall.



- Designed for 50/60Hz operation
 - For indoor use only; includes 4' power cord
- TR-STEP 300 watts max, 5 lbs\$24.99
TR-STEP500 500 watts max, 9 lbs\$31.99
TR-STEP1000 1000 watts max, 13 lbs\$49.99
TR-STEP1500 1500 watts max, 17 lbs\$69.99
TR-STEP2000 2000 watts max, 22 lbs\$89.99
TR-STEP3000 3000 watts max, 27 lbs\$139.99

110 VAC Line Cords

Line Cords

6-ft. power cable has a standard 3-prong male end & 3 insulated wires on the other end.



- LC-3 18AWG, SVT, U/L, CSA, 1 lb\$1.99
LC-2 2-wire line cord, 1 lb\$1.29

HP-Type

Work with PC power supplies and monitors. Each cable has a standard 3-prong male end and HP-type female end.

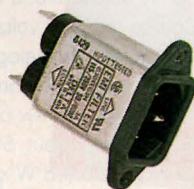


- LC-HP 6' long, 1 lb\$3.99
LC-HP13 13' long, 1 lb\$4.99

EMI Filter

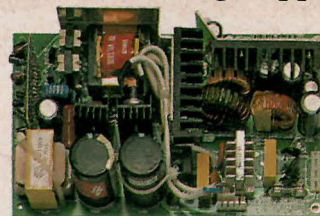
Reduces line noise caused by electromagnetic line-to-ground interference. For computer-grade electronic applications.

- 3-pronged filter
- 3A @ 115/250VAC
- Quick disconnect/solder terminals



- EMI-FILTER 1 lb\$4.99
6EF1F 6A filter, 1 lb\$5.49

112 Watt Switching Supply



- +5V @ 10A, +12V @ 3.5A, +12V @ 1.5A,
-12V @ 200mA
 - 5"L x 8.5"W x 1.97"H
 - Open framed power supply
 - Limited quantities
- PS-DPS-110AP 3 lbs\$14.99

12VDC/120VAC Inverters

Power your notebook computer battery charger or other low power AC device from your auto, boat or RV! This unit converts the 12VDC power in your vehicle into 120VAC 60Hz power.



- 140W continuous output power, 400W peak; 110 VAC 60Hz grounded AC socket
 - Cigarette lighter plug on 24" cord
 - Low-voltage alarm and cut-out when input supply drops below 10.5VDC; short circuit, overload and thermal protection
- PI-1140 2 lbs\$59.99
PI-1250 220 watt version, 3 lbs\$79.99

Fuses and Holders

- Fast and slow blow types
- Sold in packs of 5 pieces
- 3AG, 250VAC or less
- Silver alloy element in glass tube
- 1.25"L x 0.25"W



Part #	Type	Current	Price
FBF250-5	Fast Blow 5-pack	250mA	.75
FBF500-5	Fast Blow 5-pack	500mA	.75
FBF1-5	Fast Blow 5-pack	1A	.75
FBF2-5	Fast Blow 5-pack	2A	.75
FBF2.5-5	Fast Blow 5-pack	2.5A	.75
FBF3-5	Fast Blow 5-pack	3A	.75
FBF5-5	Fast Blow 5-pack	5A	.75
FBF7.5-5	Fast Blow 5-pack	7.5A	.75
FBF10-5	Fast Blow 5-pack	10A	.75
SBF500-5	Slow Blow 5-pack	500mA	1.95
SBF1-5	Slow Blow 5-pack	1A	1.95
SBF2-5	Slow Blow 5-pack	2A	1.95
SBF2.5-5	Slow Blow 5-pack	2.5A	1.95
SBF5-5	Slow Blow 5-pack	5A	1.95
SBF7-5	Slow Blow 5-pack	7A	1.95
SBF10-5	Slow Blow 5-pack	10A	1.95



Part #	Description	Each	Bulk Qty Price
FH-AUTO	3AG auto-in-line fuse holder, 4" wires	.69	100 .57
FH-BLOCK	3AG block-type fuse holder	.49	100 .37
FH-CHASSIS	3AG chassis mount fuse holder	.79	100 .66
FH-PC	3AG PC mount fuse holder	.15	100 .12

TV Transmitter Kit

Build this TV transmitter kit and you'll be able to watch your VCR in another room, without stringing extra wire! This kit lets you send any audio or video source (like a VCR or TV camera) to any TV set up to 300 feet away!



- Tunable to TV channels 2-6
- Instructions explain every part of the circuit
- Accepts standard audio and video signals
- Requires a 12VDC power supply

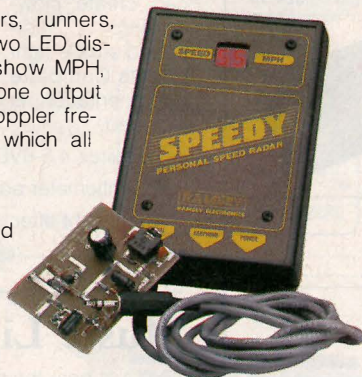
RK-TV6 1 lb\$22.99
RK-CTV Case, 1 lb\$14.99

Send any audio or video source (like a VCR or TV camera) to any TV set up to 300 ft. away!

Personal Speed Radar

This speed radar can clock cars, runners, boats, horses, bikes and more. Two LED displays can be accurately set to show MPH, KPH or feet-per-second. Earphone output allows you to hear the actual Doppler frequency shift - the theory upon which all radars operate.

- Two 7-segment LED displays
- Antenna can be remotely placed up to 300 feet away
- Uses two 13 oz. aluminum cans for antenna - cans not included
- Includes ABS case, label and explanation of how radar works
- Requires a 12VDC power supply



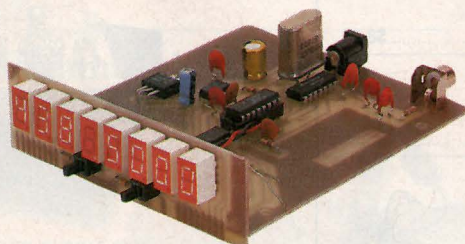
Earphone lets you hear the Doppler frequency shift of moving objects

RK-SG7 Personal speed radar kit, 1 lb\$99.99

Touch Tone Display Kit

This microprocessor-based project can save up to 256 digits in an EEPROM, so the numbers are stored even after the power is removed!

- Eight 7-segment LED display scrolls digits
- Decode rate of up to 10 digits per second
- Requires a 7-15VDC power supply



Display DTMF touch tones with this handy unit

RK-TG1 Touch tone display kit, 2 lbs.....\$99.99
RK-CTG Plastic case for touch tone display kit, 1 lb\$14.99
TR-STAR6 Plug transformer for above kit, 1 lb\$7.99

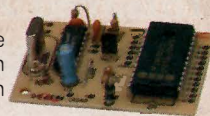
Note: Returns on kits will be accepted only for unassembled units returned in the original condition

Touch Tone Decoder Kit

This kit allows you to decode the sixteen possible touch tones from telephones and radios and can be connected directly to the audio source or can pickup tones via microphone.

- Decodes numbers 0 through 9, *, # and A, B, C, D
- 20mA output can drive power relays, LEDs, digital devices & more
- Requires a 5VDC power supply

RK-TT7 1 lb\$29.99



Other Ramsey Electronic Kits

Voice Activated Switch

- Detects sound to turn on a device

RK-VS1 1 lb\$7.99

Electronic Touch Switch

- Two independent touch switches

RK-TS1 1 lb\$8.99

Mini Condensor Mike

- Use with FM wireless mike kits

RK-MC1 1 lb\$3.99

Speech Scrambler/Descrambler

- Scramble and descramble audio

RK-SS7 1 lb\$39.99

RK-CSS Case, 1 lb\$14.99

Microwave Motion Detector

- For car/home alarm applications

RK-MD3 1 lb\$19.99

RK-CMD Case and knob set, 1 lb\$13.99

Universal Timer

- Times from microseconds to hours

RK-UT5 1 lb\$7.99

Touch Tone Encoder/Decoder

- For PL tones, tone bursts, FSK, etc.

RK-TD1 1 lb\$7.99

800-950MHz Scanner Converter

- Converts freq's to 400-550MHz

RK-SCN1 1 lb\$54.99

RK-CSCN Case, 1 lb\$14.99

2-Meter VHF Mini-Receiver

- Dual conversion superhet design

RK-FR146 1 lb\$34.99

RK-CFR Case and knob set, 1 lb\$14.99

Aircraft Receiver

- Listen to airlines, towers and more

RK-AR1 1 lb\$29.99

RK-CFR Case and knob set, 1 lb\$14.99

2-Meter Power Amplifier

- Maximum output is 35-40 watts

RK-PA1 1 lb\$39.99

Super Snoop Amplifier

- 2 watt audio output

RK-BN9 1 lb\$8.99

Broadband Preamplifier

- 20dB gain from 100kHz to 1000MHz

RK-SA7 1 lb\$15.99

FM Broadcast Receiver

- Tune in to 70-110MHz FM

RK-FR1 1 lb\$24.99

RK-CRR Case, 1 lb\$14.99

Active Antenna

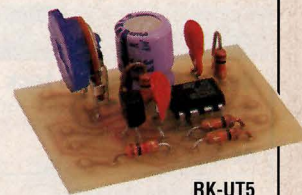
- 15dB gain in weak signals

RK-AA7 Active antenna, 1 lb\$28.99

RK-CAA Case, 1 lb\$14.99



RK-VS1



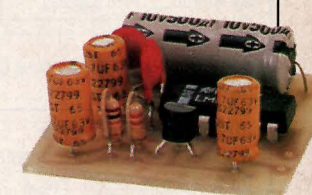
RK-UT5



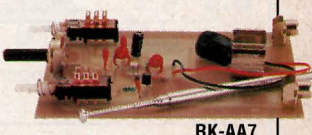
RK-MD3



RK-AR1



RK-BN9



RK-AA7

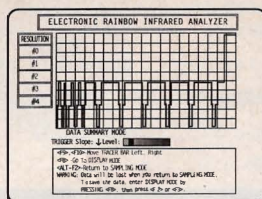


RK-SA7

Infrared Analyzer

Connect this device to your PC and see every code pattern from any remote control or other infrared device.

- Values read every 15 microseconds
- Total sampling time is approximately 2 seconds
- Zoom in on any 8 millisecond data portion; Save sampled data to disk



EK-TIR1 Infrared analyzer, 3 lbs\$89.99

Other Electronic Kits

Op Amp Function Generator

- Produce square, sine and triangle waves

DK-23 1 lb\$8.99

16 Door Chime Tunes

- Included IC has 16 pre-programmed tunes

DK-SG3 1 lb.....\$7.99

Digital Combination Lock

- Enter a 4-digit code—auto reset with incorrect sequence

DK-29 1 lb\$12.99



PIR Motion Detector

- Frighten prowlers with this detector and siren

DK-30 1 lb\$29.99

Ultrasonic Motion Detector

Detects movement past a particular point

DK-20 1 lb\$24.99

PC Board Relay

- Control lights, solenoids and other heavy loads

DK-74 1 lb\$59.99



9V 3-Digit Counter

- Connect 2-3 units together for 6 & 9-digit counters

DK-1 1 lb\$19.99

8-Channel I/R Remote Control

- 6 relays are normally open; 2 relays are latching

DK-72 1 lb\$89.99

Light Alarm

- Detects light that falls on the phototransistor

DK-8 1 lb\$9.99

Stereo VU Meter

- Indicates approximate channel power levels

DK-89 1 lb\$19.99



Electronic Dice Game

- Slowdown feature emulates "rolling" the dice

DK-3 2 lbs\$10.99

Step-Up Voltage Converter

- Supplies 40mA, powered from a 1.5VDC

DK-35 1 lb\$8.99

1 Watt Amplifier

- Low-power battery operation; no external heatsink necessary

DK-27 1 lb\$5.99

Audio Amplifier Module

Designed as a building block for a larger project

DK-17 1 lb\$4.99

Sound-Activated FM Transmitter

- 6V sound-activated switch w/2-stage FM transmitter

DK-28 1 lb\$8.99

DK-7 3V version of above, 1 lb\$4.99



Digital Multimeter Kit

Build your own DMM-150 digital multimeter and learn! This kit includes everything you need to build a 3.5-digit multimeter. You'll be able to test for AC and DC voltage, DC current, resistance and more. Includes a pair of test leads and assembly instructions.



- Digital multimeter kit with 3.5-digit LCD

- 19 ranges including AC and DC voltage, DC current and more

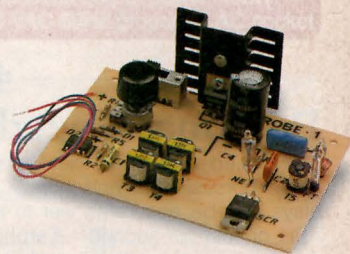
- Includes diode and transistor hFE tests

DK-DMM Digital multimeter kit, 1 lb\$19.99

DMM-150-CC Carrying case, 1 lb\$9.99

Strobe Light Kit

Assemble this strobe light kit and you can create exciting light effects. With the simple turn of a potentiometer, you can create slow-moving or fast-paced strobe light effects. Complete documentation is included.



- Requires 4.5-6VDC or 12VDC supply
- Potentiometer adjusts flash rate
- Great light effects - impress your friends

EK-ST1 1 lb\$14.99

Music Lights

Don't just hear the music, see it too! Create your own rock concert-type light effects with Music Lights. Three different lights flicker in time to music, a different color for lows, mids and highs. Each channel is individually adjustable, runs off of 120VAC and controls up to 300 watts of power. Install this kit in our RK-CML case for a clean and professional look. Complete documentation included.



- Lights flicker in time to music low, mid and high frequencies
- Controls up to 300 watts per channel
- Requires 120VAC power input, line cord not included

RK-ML1 Music light kit, 2 lbs\$19.99

RK-CML Case for music light kit, 1 lb\$13.99

Note: Returns on kits will be accepted only for unassembled units returned in the original condition

Stairway to Heaven Game

A 2-colored LED flashes red and green. Try to press the switch when the LED is green--and progress to the next of 6 LEDs in the stairway. But if you press the switch when the LED is red, you start all over!

- Flashing rate is variable
- Uses with Schmidt trigger inputs
- Requires a 9V battery

DK-5 2 lbs.....\$10.99



SCA FM Subcarrier Decoder Kit

Many restaurants, department stores and hotels pick up their music on a special subcarrier. This tuner decodes commercial-free music, stock quotes, news and more where available.

- Tunes entire SCA subcarrier band, 50-100kHz
- High-fidelity band-pass filtered input
- Front-panel tuning and volume controls

RK-SCA1 1 lb.....\$29.99

RK-CSCA Case, 1 lb.....\$14.99

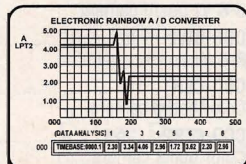


8-Channel Chart Recorder

Use your computer as an oscilloscope. Simultaneously monitor eight separate 8-bit analog inputs and display them graphically or digitally.

- Connect via PC parallel port
- Over 20 DOS software programs included
- Hardware-selectable 0-2.5V DC or 0-5V DC input range
- Size: 1"H x 3"W x 2.5"D

EK-AD8 1 lb.....\$89.99

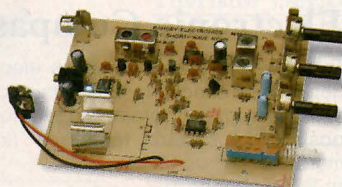


Shortwave Receiver Kit

- Sensitive receiver is a true superhet design
- AGC, RF gain control and plenty of speaker volume
- Smooth varactor diode tuning allows any 2MHz portion of the 4-11MHz frequency range
- Uses a 9V battery

RK-SR1 1 lb.....\$34.99

RK-CHR Case and knob set, 1 lb.....\$14.99

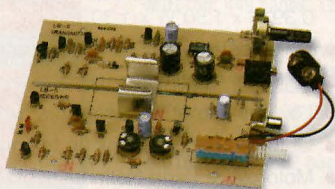


Light Beam Communicator Kit

- Transmits an infrared light beam up to 30 ft. without lenses
- Modulated with a 30kHz carrier
- Transmitter uses any type of mike
- Separate receiver uses IR PIN diode detector
- Drives loudspeaker or earphone
- Uses a 9V battery

RK-LB56 1 lb.....\$21.99

RK-CLB56 Case, 1 lb.....\$13.99

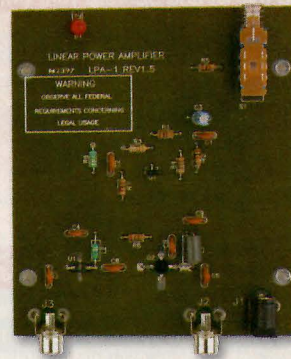


RF Linear Power Booster Amp

Ideal for test bench and lab applications as well as boosting the output of a small transmitter or signal generator, this power amplifier can boost power up to 1 watt over a frequency range from 100kHz to over 1GHz.

- Requires 2-15VDC 250mA supply
- 38dB gain at 10MHz, 0dB at 1ghz
- Includes 2.1mm male power connector

RK-LPA1 1 lb.....\$49.99

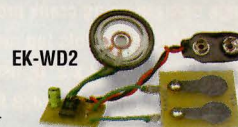


Other Electronic Kits

Water Alarm

- Sounds an alarm when moisture is detected

EK-WD2 1 lb.....\$11.99



Infrared Passage Detector

- Detect anyone passing through the 5 to 8' beam

EK-IR3 Transmitter, 1 lb.....\$8.99

EK-IR4 Receiver, 1 lb.....\$19.99

Adaptors for your Multimeter

- Capacitance, inductance and temperature adaptors available

EK-DT3 Thermometer adaptor measures from -40 to 250, 1 lb.....\$8.99

EK-IA1 Inductance adaptor reads from 3uH to 7uH, 1 lb.....\$14.99

EK-EIA Case for inductance adaptor, 1 lb.....\$8.99

Electronic Timer

- Push-button switch triggers the timer for an interval you hardwire

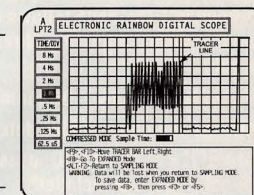
EK-ET1 1 lb.....\$8.99

Digital Storage Scope

- Capture/analyze signals from TV/VCR remote controls on your PC

EK-DSSA1 2 lbs.....\$89.99

EK-OVA1 Audio adaptor for above, 1 lb.....\$9.99



Busy Phone Light

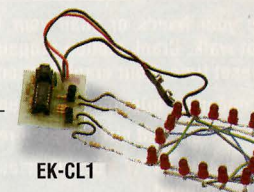
- Indicates when another phone extension is in use

EK-TELLIT1 1 lb.....\$11.99

Chaser Lights

- Great for signs, photographic effects, holiday displays and more

EK-CL1 1 lb.....\$19.99



Lie Detector

- Reacts to Galvanic Skin Resistance (skin moisture)

EK-LD1 1 lb.....\$11.99

Micro-Mini Wireless Mike

- Tunable from 88-108MHz FM; transmits up to 1 mile

EK-MMWM5 1 lb.....\$34.99

EK-WM1 80-120MHz version, 1 lb.....\$14.99

Monolithic Stereo FM Transmitter

- Stereo multiplexer, modulator and RF amp circuits

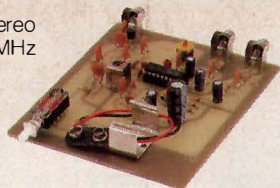
EK-FMST100 1 lb.....\$29.99



Note: Returns on kits will be accepted only for unassembled units returned in the original condition

Stereo FM Transmitter Kit

- Build this kit and operate your own stereo radio station, anywhere in the 88-108MHz FM broadcast band
- Requires a 3-12VDC power supply
- Adjustable stereo balance; over 30dB separation



RK-FM10 Stereo FM transmitter kit, 1 lb\$34.99
RK-CFM10 Case and antenna set, 1 lb\$14.99

Fun, Educational MOVIT Kits from OWI

These logic-controlled battery-operated kits teach the basic principles of robotic sensing and locomotion. The manuals include easy-to-understand, in-depth descriptions explaining torque, power, gear ratios and more. Kits are available unsoldered or presoldered. The unsoldered models require PC board assembly (using simple hand tools) and soldering.

Soccer Robot with Ball

Runs forward, backward, turns and can even kick its mini soccer ball. Buy 2 robots for games with friends!

- 6 legs operate using crank motion
- Hand-held box controls leg movement
- Size 5.5"H x 3.5"W x 5"D; uses 2 AA batteries, not included



MV-982 Presoldered PC board, 3 lbs\$33.99

Sound/Impact Sensing Robot

Colorful roving critter bumps into objects, but the sound of the impact or clapping hands causes it to reverse, turn left and try moving forward again.

- 3 wheels driven by 1 DC motor
- Condenser microphone picks up sounds
- Size 5"H x 5.25"W x 3.5"D; uses 2 AA batteries, not included



MV-969 Presoldered version, 3 lbs\$23.99

Line Tracker

Robot follows black lines you draw on white backgrounds. The nose follows the line with an infrared sensor, adjusting direction to follow your path.

- 2 wheels driven by 2 DC motors
- Infrared and photo diodes detect line position
- Size 6"H x 5"W x 3.5"D; uses one 9V and 2 AA batteries, not included



MV-963 Presoldered version, 3 lbs\$67.99
OWI-963K Unsoldered version, 3 lbs\$47.99

Mecha-Medusa Walking Robot

Clap your hands or snap your fingers to make this robot walk. Crank motion propels the unit forward for a preset time. Four crank-motion legs

- Condenser microphone pickup activates robot
- Preassembled circuit board requires no soldering
- Size 4"H x 4"W x 5.5"D; uses 2 N size batteries, not included

MV-949 Light-sensitive presoldered version, 3 lbs\$37.99
OWI-989K Unsoldered version, 3 lbs\$33.99



Spider Infrared-Controlled Robot

Walking robot detects obstacles (via reflection of a projected infrared light), then changes direction. Six crank-motion legs

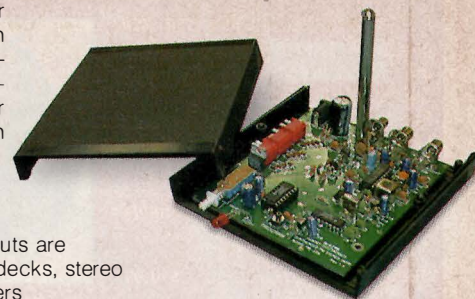
- Size 6"H x 4.5"W x 4"D; uses one 9V and 2 AA batteries, not included

MV-962 Presoldered version, 3 lbs\$67.99
OWI-962K Unsoldered version, 3 lbs\$47.99



Synthesized FM Stereo Transmitter

Build your own low-power FM transmitter and learn the basics of stereo transmission. Extend the output of your indoor CD or tape player, so you can listen in the yard too!



- Broadcasts in 88-108MHz FM band
- Standard line level inputs are compatible with tape decks, stereo systems and CD players
- Includes a 12VDC power supply

RK-FM25 Synthesized FM stereo transmitter, 1 lb\$129.99
RK-FM4 FM Transmitter Kit, 80-110MHz band, 1 lb\$15.99

CCD TV Camera Modules

These high-quality cameras are available in two form factors. The BW1 and CLR1 board cameras are great for building video monitoring equipment and the BW2 and CLR2 bullet cameras are ideal surveillance applications due to their small size and their resistance to the elements.

- All models are small in size yet provide a great image that can be displayed on any NTSC monitor
- Adjustable focus and automatic electronic shutter
- 0.3 LUX minimum illumination for clear images even in low light situations

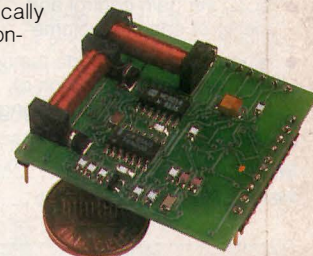


CDD-BW1 1 lb\$99.99
 B & W board camera
CDD-BW2 1 lb\$149.99
 B & W bullet camera
CDD-CLR1 1 lb\$199.9
 Color board camera
CDD-CLR2 1 lb\$299.99
 Color bullet camera

Electronic Compass Modules

This low-cost 2-axis compass electronically determines direction. Use it in microcontroller navigation projects, to provide positioning system feedback and more.

- To calibrate, assert the calibrate signal, turn the module 180 degrees and assert again—no tuning coils to adjust
- 2 degrees accuracy, 1 degree resolution
- 2-axis compass module measures 0.39"H x 1.50"W x 1.30"D
- Pin-selectable BCD or binary output
- Polled or continuous mode output
- Low res output 5Hz, high res output 2.5Hz
- Outputs source or sink up to 5mA
- Motorola SPI and National Microwire compatible 3-wire serial output
- Uses 5VDC regulated supply @ 10mA

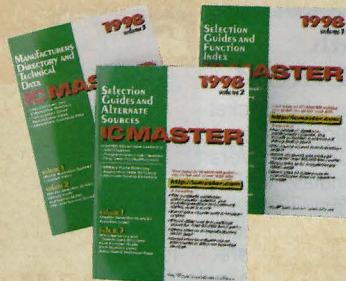


VECTOR-2X 2 axis compass module, 1 lb\$49.99
VECTOR-2XG Above with leveling gimbal, 1 lb\$99.99
VECTOR-2X-KIT Development board only with demo software, 1 lb\$99.99

Data Books and Educational Video Tapes

1998 IC Master

If you are designing or repairing electronic equipment, the IC Master is indispensable. With pinouts and/or data on over 125,000 commercially available ICs this 3-volume set is a must for your technical library. Buy the IC Master and gain access to their website.



IC-MASTER 3-volume set, 8 lbs	\$199.99
IC-MASTER-CD CD version, 2 lbs	\$249.99
IC-MASTER-95* 3-volume set, 8 lbs	\$99.99
IC-MASTER-97* 3-volume set, 8 lbs	\$129.99

*Limited to quantities on hand

National Semiconductor



Application Specific Analog Products

Information and specifications on audio, radio, video, display drivers, clock drivers, automotive and frequency synthesis circuits.



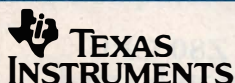
400034 1,280 pages, 1995, 3 lbs	\$15.99
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Linear Applications Handbook

A fully indexed and cross-referenced collection of linear IC applications using both monolithic and hybrid circuits.

400043 1,254 pages, 1994, 2 lbs	\$18.99
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Texas Instruments



TTL Logic

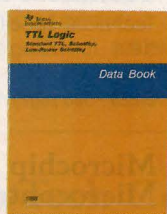
Features Pinout and applications data on both 74S Schottky and 74LS Low-Power Schottky TTL devices.

TITTL 3 lbs	\$23.99
1,250 pages, 1988	

Memory

Reference and pinout data on a variety of memory devices including DRAM, EPROMs and more.

TIMEM 1,340 pages, 1995, 4 lbs	\$19.99
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Motorola

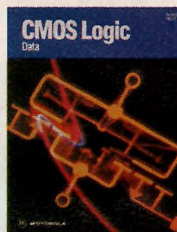


MOTOROLA

Fast and LS TTL Data

Pinout and applications data covering the Fast and Low-Power Schottky device families.

MOT121 2 lbs	\$7.99
330 pages, 1992	



Small-Signal Transistors, FETs and Diodes

Pinout and applications data on discrete small-signal and field-effect transistor and diodes.

MOT126 932 pages, 1997, 2 lbs	\$5.99
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Linear and Interface ICs

Ideal applications databook for digital IC applications using linear and interface ICs.

MOT128 2,361 pages, 2-vol., 1996, 4 lbs	\$19.99
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High Speed CMOS Logic Data

Pinout and applications data on 74HC series high-speed CMOS integrated circuits.

MOT129 804 pages, 1996, 2 lbs	\$7.99
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CMOS Logic Data

Pinout and application data on both 4000 and 4500 series CMOS integrated circuits.

MOT131 563 pages, 1991, 2 lbs	\$7.99
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Communications Device Data

Pinout and applications data on line drivers and receivers, codecs and more.

MOT136 909 pages, 1996, 2 lbs	\$6.99
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Thyristor Device Data

Applications and device data on a full range of thyristors, SCRs and Triacs.

MOT137 486 pages, 1995, 2 lbs	\$8.99
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FACT Data

Pinout and applications data on 74AC advanced CMOS and 74ACT TTL-compatible advanced CMOS devices.

MOT138 459 pages, 1993, 1 lb	\$6.99
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TVS/Zener Device Data

Applications data on a variety of diodes and transient voltage suppressors.

MOT150 449 pages, 1994, 2 lbs	\$5.99
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MC68000 Family Programmer's Reference

Programming applications data for the 68000 family of 8/16/32-bit microprocessors.

MOT68000PM 652 pages, 1992, 2 lbs	\$8.99
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MC68000 8/16/32-Bit MPU User's Manual

Functional data on the 68000 family of microprocessors including the 68020 and 68030.

MOT68000UM 228 pages, 1993, 1 lb	\$6.99
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MC68HC05/705C8 Applications Guide

Detailed pinout and application information on these versatile 8-bit microcontrollers.

MOT68HC05AG 296 pages, 1997, 1 lb	\$6.99
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MC68HC11 Reference Manual

This reference gives you a unique insight into the functionality and programmability of the 68HC11.

MOT68HC11RM 486 pages, 1992, 2 lbs	\$8.99
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MC68HC705K1 Technical Data

Concise reference of applications and technical data on this HCMOS 8-bit microcontroller.

MOT68HC705K1D 106 pages, 1997, 1 lb	\$5.99
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RF Device Data

Contains over 1400 pages of data on discrete transistors, plus a comprehensive Selector Guide listing the devices under a variety of application, frequency band and package classifications. Case dimensions and a competitor cross reference are included.

MOT110 1,124 pages, 1997, 5 lbs	\$9.99
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Optoelectronics Device Data

A complete optoelectronics product line, including infrared GaAs and GaAlAs emitters, silicon detectors, high technology optocouplers/isolators and fiber optics.

MOT118 147 pages, 1995, 1 lb	\$6.99
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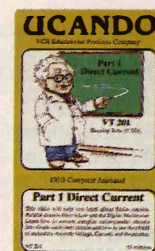
Power MOSFET Transistor Data

More than 200 pages, a comprehensive Selector Guide by package, and complete data sheets on all Motorola's TMOS Power MOSFETs.

MOT135 276 pages, 1996, 1 lb	\$9.99
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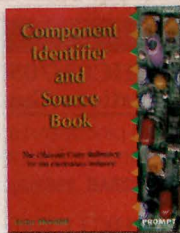
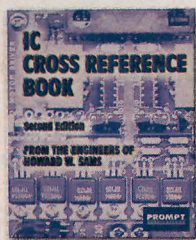
UCANDO Educational Video Tapes

These instructional videos allow you to learn about electronics comfortably and in the convenience of your own home.



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SAMS-1088-4 353 pages, 2 lbs\$24.99

IC Cross Reference Book

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Semiconductor Cross Reference Book 4th Edition

Comprehensive cross reference helps you find replacements or substitutions for over 500,000 semiconductors. Compiled from manufacturers' data and from analysis of consumer electronics devices for PHOTOFAC service data.

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A guide for most TTL applications - how it works, how it's used and many practical applications.

SAMS-TTL 336 pages, 1995, 2 lbs\$22.99

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This book includes the physical basics of light terms of optoelectronics, a history of light and photoelectrics, intensity and much more.

SAMS-1110-4 2 lbs\$29.99
Vol. 1, 258 pages, 8.5" x 11", 1997

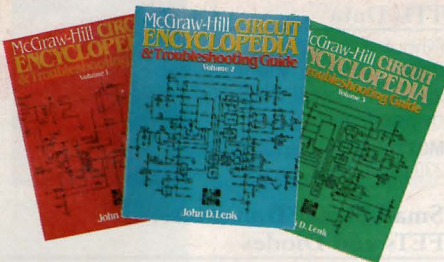
Optoelectronics, Volume II

This intermediate-level book presents over 250 pages of information on radio-metrics, color CRTs, bar codes, ultraviolet theory and more.

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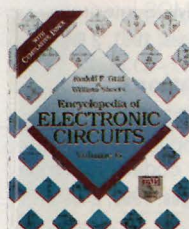
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This reference provides a single source of current electronics information for engineers, technicians, students and electronics enthusiasts.

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Technical specifications and applications data for Zilog's venerable Z80 microprocessor.

ZIL29 536 pages, 2 lbs\$8.99

Microchip Microcontrollers

A concise reference of applications data for Microchip's line of PIC-series microcontrollers.

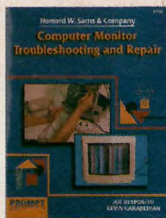
PICMCU 1,621 pages, 1996/1997, 3 lbs ..\$19.99

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Designed to train the novice and better inform the professional technician, this reference covers electronic tests and measurement techniques with the use of common bench equipment.

SAMS-1063-9 376 pages, 2 lbs\$16.99

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This practical handbook shows you how to use common test equipment such as DMMs, oscilloscopes, logic probes and more. Includes flowcharting, current testing techniques and more.

TAB4127-0 330 pages, 2 lbs\$13.99

Troubleshooting and Repairing PCs—The Technician's Guide

This handy reference includes hundreds of up-to-date PC solutions and diagnostic techniques and includes a CD-ROM full of helpful software diagnostic tools.

TAB2099-7 1,104 pages, 4 lbs\$44.99

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This book covers repair and flowchart troubleshooting information on dot-matrix, ink-jet and electrophotographic printers.

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This complete repair reference includes detailed schematic, block diagrams, diagnostic flowcharts, exploded illustrations and more.

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This book guides you from the fundamentals of power supply components and their functions to the design and construction of a power supply system. The comprehensive coverage includes the basics of AC and DC energy sources, regulated and unregulated power supply systems, linear and switching power supply projects, measurements, calibration and troubleshooting.

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EPROM

Byte and word organized devices are ideal for BIOS & non-volatile read-only memory applications. Standard and low-power CMOS versions available in 0.6" pin wide packages.

Part #	Speed	Org	# Pins	VPPG	Each	Bulk	
						Qty	Price
2716	450ns	2k x 8	24	25	5.99	15	5.31
2716-1	350ns	2k x 8	24	25	6.49	15	5.76
2716B	450ns	2k x 8	24	12.5	5.49	11	4.87
2716B-250	250ns	2k x 8	24	12.5	5.99	14	5.19
TMS2532	450ns	4k x 8	24	25	5.99	15	5.19
2732A-250	250ns	4k x 8	24	21	4.89	15	4.29
2732A-200	200ns	4k x 8	24	21	5.99	15	5.35
27C32-200	200ns	4k x 8	24	12.5	4.39	14	3.86
2764A-250	250ns	8k x 8	28	12.5	3.99	13	3.31
2764A-200	200ns	8k x 8	28	12.5	4.09	13	3.59
2764A-150	150ns	8k x 8	28	12.5	5.99	13	5.21
27C64A-200	200ns	8k x 8	28	12.5	2.89	12	2.43
27C64A-150	150ns	8k x 8	28	12.5	3.19	12	2.66
27128A-250	250ns	16k x 8	28	12.5	3.99	12	3.31
27128A-200	200ns	16k x 8	28	12.5	4.29	13	3.77
27128A-150	150ns	16k x 8	28	12.5	4.79	15	4.22
27C128A-250	250ns	16k x 8	28	12.5	2.89	13	2.39
27C128A-200	200ns	16k x 8	28	12.5	3.39	13	2.69
27C128A-150	150ns	16k x 8	28	12.5	3.69	13	2.98
27C128A-120	120ns	16k x 8	28	12.5	3.99	12	3.36
27256-250	250ns	32k x 8	28	12.5	4.49	13	3.96
27256-200	200ns	32k x 8	28	12.5	4.75	13	4.25
27256-170	170ns	32k x 8	28	12.5	6.99	13	6.21
27C256-250	250ns	32k x 8	28	12.5	3.09	13	2.66
27C256-150	150ns	32k x 8	28	12.5	3.19	13	2.71
27C256-100	100ns	32k x 8	28	12.5	3.69	13	3.33
27C256-90	90ns	32k x 8	28	12.5	4.29	12	3.72
27C256-55	55ns	32k x 8	28	12.5	4.79	13	4.21
27512-250	250ns	64k x 8	28	12.5	3.29	13	2.72
27512-200	200ns	64k x 8	28	12.5	3.19	12	2.79
27C512-150	150ns	64k x 8	28	12.5	3.29	12	2.89
27C512-100	100ns	64k x 8	28	12.5	3.49	13	3.09
27C512-80	80ns	64k x 8	28	12.5	3.99	13	3.31
27C1024-150	150ns	64k x 16	40	12.5	5.19	10	4.61
27C1024-120	120ns	64k x 16	40	12.5	5.99	9	5.43
27C101-200	200ns	128k x 8	32	12.5	2.69	12	2.29
27C101-150	150ns	128k x 8	32	12.5	2.99	12	2.61
27C101-120	120ns	128k x 8	32	12.5	3.29	12	2.99
27C101-100	100ns	128k x 8	32	12.5	3.59	12	3.29
27C101-80	80ns	128k x 8	32	12.5	3.99	12	3.49
27C101-70	70ns	128k x 8	32	12.5	4.49	12	4.19
27C101-45	45ns	128k x 8	32	12.5	4.99	12	4.39
27C2048-150	150ns	128k x 16	40	12.5	5.99	9	5.41
27C201-150	150ns	256k x 8	32	12.5	3.89	11	3.31
27C201-100	100ns	256k x 8	32	12.5	4.49	12	4.02
27C4096-150	150ns	256k x 16	40	12.5	5.99	9	5.19
27C4096-100	100ns	256k x 16	40	12.5	6.99	13	6.11
27C4096-80	80ns	256k x 16	40	12.5	7.99	9	7.08
27C401-150	150ns	512k x 8	32	12.5	4.99	12	4.31
27C401-120	120ns	512k x 8	32	12.5	5.49	12	4.88
27C401-100	100ns	512k x 8	32	12.5	5.99	12	5.21
27C401-80	80ns	512k x 8	32	12.5	6.99	12	6.11
27C801-150	150ns	1024k x 8	32	12.5	8.99	12	8.01
27C801-100	100ns	1024k x 8	32	12.5	9.99	12	9.01
27C160-100	100ns	2048k x 8	42	12.5	15.99	9	15.11

EPROM Labels

Identify your devices easily and protect them from UV exposure! These labels work with pen, pencil, dot matrix and laser printers. For 24-pin or larger .6" wide DIP EPROM.

EWOL 1 lb\$3.99
147 adhesive labels, each 1.1" x 0.46"



EEPROM

These devices can be electrically erased in the actual application circuit. Systems that might require future BIOS or microcode field upgrades should take advantage of these devices for maximum flexibility.

Part #	Speed	Org	# Pins	CMOS	Each	Bulk	
						Qty	Price
2816-200	200ns	2k x 8	24		3.39	15	2.82
28C16-250	250ns	2k x 8	24	✓	2.99	15	2.43
28C16-150	150ns	2k x 8	24	✓	3.29	16	2.53
2864-250	250ns	8k x 8	28		6.99	15	5.99
28C64-200	200ns	8k x 8	28	✓	4.09	13	3.62
28C64-150	150ns	8k x 8	28	✓	4.29	14	3.77
28C64-120	120ns	8k x 8	28	✓	4.49	14	3.81
28C65-200	200ns	8k x 8*	28	✓	6.79	14	5.99
28C256-250	250ns	32k x 8	28	✓	8.99	14	8.11
28C256-150	150ns	32k x 8	28	✓	9.29	14	8.32
28C256-120	120ns	32k x 8	28	✓	14.99	15	13.88
28C010-120	120ns	128k x 8	32	✓	29.99	11	27.61

* Pin 1 Rdy/Busy

Serial EEPROM

Ideal for logic sequencers and pulse generators, these EPROMs operate serially to minimize pin count.

Part #	Pins	Organization	Each	Bulk	
				Qty	Price
93C06	8	256-Bit (16 x 16)	.59	40	.52
59C11	8	1024-Bit (128 x 8 or 64 x 16)	.89	50	.76
93C46	8	1024-Bit (64 x 16)	.59	49	.48
93C56	8	2048-Bit (128 x 16)	.69	40	.58
93C66	8	4096-Bit (256 x 16)	.99	40	.82

I²C Bus EEPROM

These 8-pin two-wire I²C serial bus EEPROMs support up to 1 million erase/write cycles and have 2ms typical programming time.

Part #	Pins	Organization	Each	Bulk	
				Qty	Price
24C01	8	1024-Bit, 128 x 8	.49	50	.43
24C02	8	2048-Bit, 256 x 8	.59	50	.52
24C04	8	4096-Bit, 2 x 256 x 8	.79	50	.69
24C08	8	8192-Bit, 4 x 256 x 8	.99	50	.89
24C16	8	16384-Bit, 8 x 256 x 8	1.39	50	1.22

Microwire Bus EEPROM

These serial bus EEPROMs conform to the industry standard Microwire specification and contain a write protection feature.

Part #	Pins	Organization	Each	Bulk	
				Qty	Price
93CS46	8	1024-Bit, 64 x 16, Write Protection	.71	50	.59
93CS56	8	2048-Bit, 128 x 16, Write Protection	.99	50	.86
93CS66	8	4096-Bit, 256 x 16, Write Protection	1.19	50	1.01



PLCC OTP EPROM

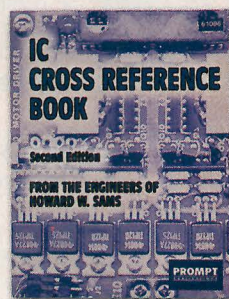
Use these PLCC EPROMs for your next project that requires memory. These devices are low power and take up less PC board space than their DIP counterparts.

Part #	Speed*	Org	# Pins	VPPG	Each	Bulk	
						Qty	Price
27C256-150JC	150ns	32k x 8	32	12.5	2.49	30	2.18
27C512-150JC	150ns	64k x 8	32	12.5	2.99	30	2.46
27C010-150JC	150ns	128k x 8	32	12.5	3.29	30	2.78
27C020-150JC	150ns	256k x 8	32	12.5	4.19	30	3.51
27C2048-120JC	120ns	128k x 16	44	12.5	4.39	28	3.64
27C040-150JC	150ns	512k x 8	32	12.5	6.99	30	6.21
27C4096-100JC	100ns	256k x 16	44	12.5	7.99	28	7.11

Other speeds available in quantities of 30 or more—just ask!

IC Cross Reference Book, 2nd Edition

Do you need to replace a hard-to-find part? Here is a complete guide to IC replacements and substitutions. This easy-to-use reference is the most comprehensive guide available for engineers, technicians, and anyone who works with ICs.



SAMS-1096-5 168 pages, 1 lb\$19.99

Atmel 29C Series Flash Memory

These low-power flash memory devices are available in 32Kx8 to 512Kx8 sizes and can be programmed with just nanoamps of voltage. Entire device or individual locations can be programmed and electrically erased for maximum versatility. These devices are all 5V; they do not use battery power.

Part #	Speed	Org	# Pins	Each	Bulk	
					Qty	Price
29C256-12PC	120ns	32k x 8	28	4.49	14	3.92
29C512-12PC	120ns	64k x 8	32	5.49	12	4.31
29C010-12PC	120ns	128k x 8	32	6.49	12	5.73
29C010-70PC	70ns	128k x 8	32	8.99	12	8.11
29C040-15PC	150ns	512k x 8	32	10.99	12	10.11
29F010-120JC	120ns	128k x 8	32*	4.99	12	4.34
29F010-90JC	90ns	128k x 8	32*	5.99	12	5.23
29F010-90PC	90ns	128k x 8	32	5.99	12	5.23
29F010-55PC	55ns	128k x 8	32	7.49	12	6.33
29F040-120JC	120ns	512k x 8	32*	7.99	11	7.18
29F040-120PC	120ns	512k x 8	32	7.99	11	7.18
29F040-90JC	90ns	512k x 8	32*	9.99	11	8.92
29F040-90PC	90ns	512k x 8	32	9.99	11	8.92
29F040-55JC	55ns	512k x 8	32*	10.99	11	9.99
28F512-200PC	200ns	64k x 8	32	4.49	10	4.01
28F512-150PC	150ns	64k x 8	32	4.99	11	4.31
28F512-120PC	120ns	64k x 8	32	5.99	11	5.23
28F512-120JC	120ns	64k x 8	32*	5.99	19	5.23
28F010-150JC	150ns	128k x 8	32*	4.49	30	4.01
28F010-120PC	120ns	128k x 8	32	4.99	10	4.34
28F010-120JC	120ns	128k x 8	32*	4.99	18	4.34
28F020-120PC	120ns	256k x 8	32	6.99	11	6.21
28F020-120JC	120ns	256k x 8	32*	6.99	30	6.21

*PLCC

www.jdr.com

PIC Processors

These embedded controllers feature a low-power CMOS design. A RISC-like architecture is combined with individually controlled pins for high-performance and versatile I/O. RC/P devices use RC clock, XT/P devices use crystal clock and all others use both. DIP package unless otherwise noted.

**New
Lower
Prices!**

Part #	PROM	Type	RAM	MHz	Pins	Each	Bulk	
							Qty	Price
12C508/JW	512x12	UV	25x8	4	8	11.99	60	10.82
12C508-04/P	512x12	OTP	25x8	4	8	1.79	60	1.66
12C509/JW	1Kx12	UV	41x8	4	8	12.49	60	11.31
12C509-04/P	1Kx12	OTP	41x8	4	8	1.99	60	1.78
16C54/JW	512x12	UV	32x8	20	18	11.99	25	10.11
16C54A-04/P	512x12	OTP	32x8	4	18	3.99	25	3.19
16C54RC/P	512x12	OTP	32x8	4	18	3.99	25	3.19
16C54XT/P	512x12	OTP	32x8	4	18	3.99	25	3.19
16C55/JW	512x12	UV	32x8	20	28	13.99	15	12.08
16C55RC/P	512x12	OTP	32x8	4	28	4.49	15	3.75
16C55XT/P	512x12	OTP	32x8	4	28	4.49	15	3.99
16C56/JW	1Kx12	UV	32x8	20	18	13.49	25	12.12
16C56RC/P	1Kx12	OTP	32x8	4	18	4.49	25	3.99
16C56XT/P	1Kx12	OTP	32x8	4	18	4.49	25	3.99
16C57/JW	2Kx12	UV	72x8	20	28	16.99	15	15.13
16C57RC/P	2Kx12	OTP	72x8	4	28	5.49	15	4.75
16C57XT/P	2Kx12	OTP	72x8	4	28	5.75	15	4.55
16C58A/JW	2Kx12	UV	72x8	20	18	14.99	25	13.88
16C58A-20P	2Kx12	OTP	72x8	20	18	5.75	25	4.55
16C61/JW	1Kx14	UV	36x8	20	18	19.99	25	18.02
16C61-04/P	1Kx14	OTP	36x8	4	18	4.99	25	4.21
16C61-20P	1Kx14	OTP	36x8	20	18	5.99	25	5.11
16C62/JW	2Kx14	UV	128x8	20	28/3"	19.99	15	17.99
16C62-04/SP	2Kx14	OTP	128x8	4	28/3"	7.99	15	6.75
16C63-20SP	4Kx14	OTP	192x8	8	28	14.99	3	12.99
16C63/JW	4Kx14	UV	192x8	20	28/3"	28.99	15	24.99
16C63-04/SP	4Kx14	OTP	192x8	4	28/3"	8.49	6	7.63
16C64/JW	2Kx14	UV	128x8	20	40	19.99	10	18.11
16C64-04/P	2Kx14	OTP	128x8	4	40	7.99	10	7.07
16C65/JW	4Kx14	UV	192x8	20	40	24.99	10	20.10
16C65-04/P	4Kx14	OTP	192x8	8	40	10.99	6	9.49
16C65-20P	4Kx14	OTP	192x8	20	40	12.99	10	10.33
16C71/JW	1Kx14	UV	36x8	20	18	22.99	25	12.11
16C71-04/P	1Kx14	OTP	36x8	4	18	7.29	25	4.73
16C71-20P	1Kx14	OTP	36x8	20	18	8.99	25	5.87
16C72/JW	2Kx14	UV	128x8	20	28/3"	19.99	15	18.36
16C72-04/SP	2Kx14	OTP	128x8	4	28/3"	6.79	15	5.23
16C72-20/SP	2Kx14	OTP	128x8	20	28/3"	7.59	15	6.71
16C73/JW	4Kx14	UV	192x8	20	28/3"	25.99	15	20.07
16C73-04/SP	4Kx14	OTP	192x8	4	28/3"	10.99	15	8.23
16C73-20/SP	4Kx14	OTP	192x8	20	28/3"	12.99	15	9.11
16C74/JW	4Kx14	UV	192x8	20	40	26.99	10	20.06
16C74-04/P	4Kx14	OTP	192x8	4	40	11.99	10	10.25
16C74-20P	4Kx14	OTP	192x8	20	40	13.99	10	11.42
16C84-04/P	1Kx14	EE	36x8	4	18	7.99	25	5.71
16F84-04/P	1Kx14	EE	68x8	4	18	5.99	25	4.73
16F84-10/P	1Kx14	EE	68x8	10	18	6.39	25	5.22
16C55A/JW	512x14	UV	80x8	20	18	11.99	25	10.78
16C55A-04/P	512x14	OTP	80x8	4	18	3.29	25	2.99
16C558/JW	2Kx14	UV	128x8	20	18	11.99	25	11.22
16C558-04/P	2Kx14	OTP	128x8	4	18	3.79	25	3.31
16C620/JW	512x14	UV	80x8	20	18	11.99	20	10.31
16C620-04/P	512x14	OTP	80x8	4	18	3.99	25	3.42
16C620-20P	512x14	OTP	80x8	20	18	4.19	25	3.78
16C621/JW	1Kx14	UV	80x8	20	18	13.99	25	13.11
16C621-20P	1Kx14	OTP	80x8	20	18	4.79	25	4.28
16C621-04/P	1Kx14	OTP	80x8	4	18	3.99	7	3.32
16C622/JW	2Kx14	UV	128x8	20	18	15.19	25	14.22
16C622-04/P	2Kx14	OTP	128x8	4	18	5.49	25	4.71
16C622-20P	2Kx14	OTP	128x8	20	18	5.99	25	5.12
16C710/JW	512x14	UV	36x8	20	18	11.49	25	10.71
16C710-04/P	512x14	OTP	36x8	4	18	4.99	25	4.33
16C711/JW	1Kx14	UV	68x8	20	18	12.99	25	12.11
16C711-04/P	1Kx14	OTP	68x8	4	18	4.19	25	3.99
16C711-20P	1Kx14	OTP	68x8	20	18	4.99	25	4.52
17C42-25/JW	2Kx16	UV	232x8	25	40	39.99	10	36.99

Note: OTP indicates One-Time Programmable, UV indicates UV erasable in CERDIP package and EE indicates Electrically Erasable

Order Toll Free!

1-800-538-5000

GAL

Electrically erasable devices with registered outputs. Use for development, then substitute with cost-effective PALs for production. As fast as 7ns speed for critical designs.

Part #	Speed	In/Out	Description	Pins	Each	Bulk	
						Qty	Price
16V8	25ns	8/8	10L8 thru 16RP8	20	1.29	18	.99
16V8-15	15ns	8/8	10L8 thru 16RP8	20	1.35	19	1.05
16V8-12	12ns	8/8	10L8 thru 16RP8	20	2.19	18	1.89
16V8-7	7ns	8/8	10L8 thru 20RP8	20	2.49	18	1.99
20V8	25ns	20/8	14L8 thru 20RP8	24/3"	1.79	15	1.39
20V8-15	15ns	20/8	14L8 thru 20RP8	24/3"	2.39	15	1.89
20V8-12	12ns	20/8	14L8 thru 20RP8	24/3"	2.69	17	2.15
22V10	25ns	22/10	Prog. Macrocell out 24/3"	3.19	15	2.65	
22V10-15	15ns	22/10	Prog. Macrocell out 24/3"	4.75	15	3.99	

PAL

One-time programmable logic devices are ideal for production environments. Registered outputs available to latch state information.

Part #	Speed	In	Out	Prog I/Os Functions	Pins	Each	Bulk	
							Qty	Price
12H8	35ns	12	6	AND-OR	20	1.49	18	1.15
16L8B	15ns	10	2	6 AND-OR Inv.	20	1.49	20	1.15
16R4B	15ns	8	4	4 *AND-OR Inv.	20	1.29	20	.99
16R6	35ns	8	6	2 *AND-OR Inv.	20	.49	20	.39
16R8	35ns	8	8	*AND-OR Inv.	20	.89	20	.69
20L8A	25ns	14	2	6 AND-OR Inv.	24/3"	1.69	16	1.42
20L8B	15ns	14	2	6 AND-OR Inv.	24/3"	1.79	15	1.45
20L10	40ns	12	2	8 AND-OR Inv.	24/3"	3.99	15	3.15
20L10A	25ns	12	2	8 AND-OR Inv.	24/3"	4.99	15	3.99
20R4A	25ns	12	4	4 *AND-OR Inv.	24/3"	.99	15	.79
20R6A	25ns	12	6	2 *AND-OR Inv.	24/3"	1.09	15	.85
20R8A	25ns	12	8	*AND-OR Inv.	24/3"	1.19	15	1.01
20S10	35ns	10	10	AND-OR	24/3"	6.99	15	5.55
20X10	50ns	10	10	*AND-OR XOR Inv.	24/3"	4.99	15	3.99
20X10A	30ns	10	10	*AND-OR XOR Inv.	24/3"	9.99	15	7.99

* Registered outputs

Altera UV Erasable PLD

Altera's low-power programmable logic devices are designed for medium speed applications. These CMOS PLDs are ultraviolet (UV) light erasable, making them ideal for prototyping and design. DIP package.

Part #	Speed	Description	Pins	Each	Bulk	
					Qty	Price
EP600	45ns	16 Macrocells	24/3"	15.99	15	12.75
EP610	25ns	16 Macrocells	24/3"	19.99	15	16.99
EP610-25T	25ns	16 Macrocells*	24/3"	9.99	15	7.99
EP610PC	25ns	16 Macrocells*	24/3"	11.99	15	9.55

† One Time Programmable *With turbo function

PIC16/17 Microcontroller Data Book

Information about the popular Microchip microcontroller line. Includes hardware and programming specifications, logic products, development systems, programming tools and a shortform catalog. Complete with timing diagrams & bit-maps of instruction sets.

PICMCU 1,621 pages, 1996/97, 3 lbs\$19.99



Signetics/Philips Programmable Devices

Field Programmable Logic Array (FPLA) & Programmable Read-Only Memory (PROM) for high-speed production designs.

Part #	Pins	Description	Each	Bulk	
				Qty	Price
PLS101	28	FPLA (16 x 48 x 8), open col.	10.99	13	9.25
PLS105	28	FPLA (16 x 48 x 8), 3-state	4.99	13	3.99
PLS153	20	FPLA (18 x 42 x 10), 3-state	1.75	18	1.39
PLS157	20	FPLA (16 x 45 x 12)	12.99	18	11.21
PLS173	24	FPLA (22 x 42 x 10), 3-state	3.99	15	3.10
PLS179	24	FPLA (20 x 45 x 12), 3-state	8.99	15	7.15
82S123	16	PROM 256-bit (32 x 8), 3-state	1.29	25	1.19
82S126	16	PROM 1024-bit (256 x 4), open col.	1.49	25	1.41
82S129	16	PROM 1024-bit (256 x 4), 3-state	1.89	25	1.75
82S131	16	PROM 2048-bit (512 x 4), 3-state	3.19	25	2.85
82S135	20	PROM 2048-bit (256 x 8), 3-state	2.99	20	2.48
82S137	18	PROM 4096-bit (1024 x 4), 3-state	2.09	20	1.90
82S141	24	PROM 4096-bit (512 x 8), 3-state	5.99	15	5.21
82S147	20	PROM 4096-bit (512 x 8), 3-state	3.79	20	3.35
82S181	24	PROM 8192-bit (1024 x 8), 3-state	4.69	15	4.09
82S191	24	PROM 16,384-bit (2048 x 8), 3-state	6.99	15	6.00
82HS321	24	PROM 32,768-bit (4096 x 8), 3-state	4.99	15	4.15

ICT CMOS PEEL Devices

Medium density electrically erasable programmable logic devices. Ideal for projects between GAL/PAL and FPGA in complexity. DIP and PLCC package styles available.

Part#	Speed	I/O Maccs	Pins/Pkg	Each	Bulk	
					Qty	Price
18CV8P-25	25ns	12 8	20/DIP	2.19	18	1.88
18CV8P-15	15ns	12 8	20/DIP	2.49	18	2.11
18CV8P-10	10ns	12 8	20/DIP	3.49	18	2.75
20CG10AP-15	15ns	12 10	24/3" DIP	3.99	15	3.15
20CG10AP-10	10ns	12 10	24/3" DIP	5.49	15	4.99
22CV10AP-25	25ns	4/12 10	24/3" DIP	3.99	15	3.15
22CV10AP-15	15ns	4/12 10	24/3" DIP	5.49	15	4.55
22CV10AP-10	10ns	4/12 10	24/3" DIP	6.99	15	5.99
22CV10AJ-10	10ns	4/12 10	28/PLCC	7.99	37	6.35

ICT's PA7024

The PA7024 is a configurable high-density Programmable, Electrically-Erasable Logic (PEEL) device. An ideal way for creating multi-level, I/O buried, logic circuits.

Part #	Speed	Description
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Static RAM

Available in byte, nibble and bit-wide formats. Ideal for cache systems where fast response and static design are required. DIP & 5V unless noted otherwise.

Part #	Org	Speed	Pins	Each	Bulk	
					Qty	Price
2101	256 x 4	450ns	22	.99	20	.69
2112	256 x 4	450ns	16	1.99	25	1.68
5101	256 x 4	450ns	22	2.20	18	1.90
2114L-2	1k x 4	200ns	18	1.49	21	1.39
2148	1k x 4	55ns	18	1.69	21	1.45
UPD410	4k x 1	100ns	22	.89	17	.69
2147	4k x 1	55ns	18	2.99	20	2.69
4KX4-15DIP	4k x 4	15ns	22/3*	1.99	17	1.59
HM6116LP-1	2k x 8	100ns	24	2.19	15	1.92
HM6116-1	2k x 8	100ns	24	1.69	17	1.49
HM6116LSP-15	2k x 8	150ns	24/3*	2.99	15	2.65
TMM2016-150	2k x 8	150ns	24	1.39	15	1.19
TMM2016-100	2k x 8	100ns	24	2.49	14	2.31
HM6264LP-12	8k x 8	120ns	28	2.39	14	2.11
HM6264LP-10	8k x 8	100ns	28	2.69	15	2.39
HM6264LP-10	8k x 8	100ns	28/3*	3.19	15	2.69
HM6264LP-70	8k x 8	70ns	28	2.99	15	2.52
7C185-15	8k x 8	15ns	28/3*	3.69	15	3.22
HM6267LP-45	16k x 1	45ns	20	4.99	20	3.99
6288-20	16k x 4	20ns	22	3.99	17	3.35
55257BSPL-10	32k x 8	100ns	28/3*	5.19	14	4.79
HM62256LP-10	32k x 8	100ns	28†	4.09	15	3.49
HM62256LP-10	32k x 8	100ns	28	2.79	15	2.38
HM62256LP-80	32k x 8	80ns	28†	4.29	25	3.79
HM62256LP-70	32k x 8	70ns	28	3.49	15	2.99
HM62832-20	32k x 8	20ns	28/3*	2.99	16	2.42
HM62832-15	32k x 8	15ns	28/3*	3.29	15	2.71
32KX8-15LVODIP	32k x 8*	15ns	28/3*	4.79	13	4.31
32KX8-15SOJ	32k x 8	15ns	28SOJ	3.99	12	3.11
HM62832-12	32k x 8	12ns	28/3*	3.39	15	3.01
32KX9-15DIP	32k x 9	15ns	32/3*	10.99	14	9.43
4C187-15	64k x 1	15ns	22/3*	4.99	18	4.21
6208-25	64k x 4	25ns	24/3*	5.99	15	5.19
64KX8-15DIP	64k x 8	15ns	32/3*	6.99	13	6.09
64KX8-15LVODIP	64k x 8*	15ns	32/3*	8.99	13	7.99
64KX8-15SOJ	64k x 8	15ns	32SOJ	8.99	10	7.32
HM628128LP-10	128k x 8	100ns	32	4.49	11	3.99
HM628128LP-80	128k x 8	80ns	32†	7.19	11	6.22
HM628128LP-70	128k x 8	70ns	32	4.69	12	4.31
HM628128LP-55	128k x 8	55ns	32	6.99	12	6.11
7C1024-20	128k x 8	20ns	32/4*	6.99	13	6.11
7C1024-20TPC	128k x 8	20ns	32/3*	6.99	13	6.11
7C1024-15	128k x 8	15ns	32/4*	7.39	13	6.61
7C1024-15SOJ	128k x 8	15ns	32SOJ	9.99	22	8.21
7C1024-15TPC	128k x 8	15ns	32/3*	7.39	13	6.61
128X8-15LVODIP	128k x 8*	15ns	32/3*	11.99	14	10.11
HM628512LP-70	512k x 8	70ns	32	14.99	11	13.76
HM628512LP-55	512k x 8	55ns	32	15.99	11	14.62
MCM67B618FN	512k x 8	80ns	52/PLCC	59.99	5	51.81

Note: 0.6" wide pkg unless otherwise specified.
Please call to confirm current market price. * 3.3V
† Small outline package

72-Pin EDO SIMMs

Add these non-parity EDO modules to your system in sets of two. Extended Data Out memory is up to 20% faster than standard Fast Page Mode and is similarly priced.

Part #	Description	Price
1MX32EED-60	4MB, 1M x 32 EDO, 60ns	9.99
2MX32EED-60	8MB, 2M x 32 EDO, 60ns	14.99
4MX32EED-60	16MB, 4M x 32 EDO, 60ns	29.99
8MX32EED-60	32MB, 8M x 32 EDO, 60ns	59.99
16MX32EED-60	64MB, 16M x 32 EDO, 60ns	199.99

www.jdr.com

ZeroPower SRAM **NEW!**

These integrated ultra-low power SRAMs have a power-fail control circuit and battery that supports 10 years of retention in the absence of power.

Part #	Org	Speed	# Pins	Each	Bulk	
					Qty	Price
M48Z02-150PC1	2KX8	150ns	24	6.49	15	5.49
M48Z12-150PC1	2KX8	150ns	24	7.39	15	5.99
M48Z08-100PC1	8KX8	100ns	28	12.99	13	11.11
M48Z18-100PC1	8KX8	100ns	28	17.49	13	15.41

TimeKeeper SRAM **NEW!**

Timekeeper SRAMs include features similar to the Zeropower SRAM series and also include a real-time clock that supports 10 years of time keeping.

Part #	Org	Speed	# Pins	Each	Bulk	
					Qty	Price
M48T02-200PC1	2KX8	200ns	24	12.75	15	11.25
M48T02-120PC1	2KX8	120ns	24	13.75	15	12.25
M48T12-150PC1	2KX8	150ns	24	13.49	15	11.78
M48T59-70PC1	8KX8	70ns	28	15.99	13	13.21
M48T08-100PC1	8KX8	100ns	28	15.49	13	13.02
M48T18-100PC1	8KX8	100ns	28	15.99	13	13.21

Dynamic RAM

DIP devices are ideal for wire wrap development. Single bit devices can be used for non-standard word widths. Available in bit, nibble, byte and word widths. DIP, SOJ and ZIP pkgs.

Part #	Pins	Description	Each	Bulk	
				Qty	Price
4116-150	16	16k x 1, 150ns, DIP	.99	25	.76
4164-120	16	64k x 1, 120ns, DIP	1.09	25	.99
4164-100	16	64k x 1, 100ns, DIP	1.19	25	1.00
41264-12	16	64k x 4, 120ns, DIP	3.99	16	3.45
TMS4464-10	18	64k x 4, 100ns, DIP	1.69	21	1.39
TMS4464-80	18	64k x 4, 80ns, DIP	2.19	21	1.99
41256-80	16	256k x 1, 80ns, DIP	1.59	25	1.29
41256-60	16	256k x 1, 60ns, DIP	2.39	19	2.19
414256-60	20	256k x 4, 60ns, DIP	4.09	19	3.49
414256-45	20	256k x 4, 45ns, DIP	4.99	19	4.25
256K4-70ZIP	20	256k x 4, 70ns, ZIP	6.99	18	5.99
256K8-45	24/3*	256k x 8, 45ns, DIP	9.99	15	8.45
256X16-70SOJ	40	256k x 16*, 70ns, SOJ	4.99	18	4.19
256X16-70ZIP	40	256k x 16*, 70ns, ZIP	10.99	10	9.49
256X16-60SOJ	40	256k x 16*, 60ns, SOJ	4.99	17	4.12
256X16EEDSOJ	24	256k x 16, 50ns, SOJ	6.99	12	6.02
256X8EEDSOJ45	24	256k x 8, 45ns, SOJ	9.99	12	9.21
1MB-100	18	1M x 1, 100ns, DIP	4.89	21	4.19
1MB-80	18	1M x 1, 80ns, DIP	4.99	21	4.25
1MB-70	18	1M x 1, 70ns, DIP	4.99	21	4.25
1MB-60	18	1M x 1, 60ns, DIP	4.99	22	4.25
1K4-60ZIP	20	1M x 4, 60ns, ZIP	9.99	18	8.49

* 2 WE pins, * 2 CAS pins

168-Pin DIMMs

These 168-pin DIMMs feature a 64-bit data path and a 3.3V unbuffered design. Choose from SDRAM, SDRAM with ECC, EDO or EDO with ECC.

Part #	Size	Speed	Description	Price
D16SD-10	16MB	10ns	2MX64 SDRAM	29.99
D32SD-10	32MB	10ns	4MX64 SDRAM	54.99
D64SD-10	64MB	10ns	8MX64 SDRAM	109.99
D128SD-10	128MB	10ns	16MX64 SDRAM	199.99
D32SDEC-10	32MB	10ns	4MX72 SDRAM w/ECC	59.99
D64SDEC-10	64MB	10ns	8MX72 SDRAM w/ECC	119.99
D32E-60	32MB	60ns	4MX64 EDO	59.99
D64E-60	64MB	60ns	8MX64 EDO	99.99
D64EC-60	64MB	60ns	8MX72 EDO w/ ECC	149.99

Note: Due to volatile market conditions, please call to confirm current prices.

6500 Series

The heart of the first Apple computer, the 6500 series is still used as a controller in many applications. CMOS version is ideal for battery powered systems.

Part #	Pins	Description	Each	Bulk	
				Qty	Price
6502A	40	8-bit MPU 2MHz	3.99	11	3.32
65C02	40	CMOS, 1MHz	4.89	11	4.22
65C02-2	40	CMOS, 2MHz	5.99	11	5.08
6520	40	Peripheral interface adaptor 1MHz	3.69	11	2.99
6522	40	Versatile interface adaptor 1MHz	2.99	10	2.68
6522A	40	Versatile interface adaptor 2MHz	3.69	11	2.88
65C22	40	CMOS, 1MHz	4.99	10	4.26
R65C24P2	40	PIA timer 2MHz	5.99	10	5.29
6532	40	128 x 8 RAM I/O and timer 1MHz	3.99	11	3.32
6545A	40	CRT controller 2MHz	4.99	11	3.75
6551	28	ASYNCR com interface 1MHz	3.99	15	3.61
6551A	28	ASYNCR com interface 2MHz	4.99	15	4.31
RC65C52P2	40	Dual asynch CIA 2MHz	8.99	11	8.08

6800 Series

This venerable microprocessor is still found in many embedded systems along with various support chips listed here.

Part #	# Pins	Description	Each	Bulk	
				Qty	Price
6800	40	MPU 1MHz	2.29	9	1.80
68B00	40	MPU 2MHz	4.99	10	3.89
6802	40	MPU w/ clk and RAM 1MHz	7.99	9	7.21
6809	40	MPU with int clock 1MHz	5.99	9	4.75
68B09	40	MPU with int clock 2MHz	7.99	9	6.35
6809E	40	MPU with ext clock 1MHz	3.89	9	3.14
68B09E	40	MPU with ext clock 2MHz	8.99	9	7.15
6810	24	128 x 8 Static RAM 1MHz	.99	15	.79
6821	40	PIA 1MHz	2.49	9	2.25
68B21	40	PIA 2MHz	2.89	9	2.31
6840	28	PTM 1MHz	4.89	15	4.16
68B40	28	PTM 2MHz	5.99	13	5.22
6850	24	ACIA 1MHz	2.39	15	1.90
68B50	24	ACIA 2MHz	5.99	15	4.75
68B54	28	Advanced data link cntrl	6.99	13	5.45
68000-12	64	16-/32-Bit MPU 12MHz	10.99	6	8.75
68HC000-10	64	16-/32-Bit HCMOS, 10MHz	10.99	5	8.75
68HC000-16	64	16-/32-Bit HCMOS, 16MHz	12.99	6	11.62
68HC000FN-16	68	As above, PLCC version	13.99	18	11.26
68230-10	48	Parallel interface/timer	14.99	8	14.20
68681	40	DUART	7.99	9	7.42
68701	40	8-Bit MCU, 128 Bytes RAM, 2048 bytes EPROM	19.99	9	15.99
68705R3P	40	8-bit MCU 37768 OTPROM, 24 I/O's timer	12.49	9	9.99
68705P3CS	28	8-bit MCU, 18048, 1128 RAM, I/O13.99	9	11.21	

68HC Series

The 68HC11 and 68HC705 series are ideal for embedded controller applications where on-chip memory and I/O pins are important.

				Bulk	
Part #	# Pins	Description	Each	Qty Price	
68HC11A1P	48	8-bit HCMOS 256B SRAM 512B EEPROM 8-bit A/D	13.29	8	11.39
68HC11E1FN	52	8-bit MCU PLCC 512B EEPROM 512B EEPROM 8-bit A/D	13.99	24	12.47
68HC68T1P	16	Real time clock	5.09	25	4.22
68HC705C8P	40	8-bit HCMOS, 8k OTPROM, 24 I/O lines, SPI, SCI	9.99	9	9.07
68HC705C8S	40	8-bit, HCMOS, 8k EPROM, 24 I/O lines, SPI, SCI	39.99	9	36.99
68HC705J1ACP	20	8-bit, MCU, 1240 B OTPROM	2.99	18	2.35
68HC705K1P	16	8-bit, HCMOS MCU, 504B OTPRM, 10 I/O's, timer	3.49	25	3.11
68HC705P6CP	28	8-bit, MCU, 4672B OTPROM	6.49	13	6.11
68HC705P9CP	28	8-bit, MCU, 2104B OTPROM	4.39	13	3.96
68HC811E2FN	52	8-bit, MCU PLCC 3kB EPROM	19.99	24	18.61
68HC811E2P	48	8-bit, MCU DIP 3kB EPROM	24.99	7	22.13

8000 Series

This popular series features the 8751 family, ideal for microcontroller and embedded applications. Available in various EPROM, RAM, power and speed configurations.

Part #	# Pins	Description	Each	Bulk	
				Qty	Price
V20-8	40	8MHz NEC MPU	8.99	9	7.25
V20-10	40	10MHz NEC MPU	10.99	9	8.99
8031	40	8-bit, 12MHz	3.89	9	3.18
80C31	40	8-bit, 12MHz, CMOS	4.49	8	3.99
80C31-16	40	8-bit, 16MHz, CMOS	4.99	9	4.31
8032	40	8-bit MCU, 12MHz	4.99	8	4.31
80C32	40	As above, CMOS, 12 MHz	4.09	9	3.26
80C32-16	40	As above, CMOS, 16MHz	4.49	9	3.72
80C32T2-1	40	8-Bit MCU, 12MHz	2.49	9	1.99
8035	40	8-bit MCU, 64 x 8 RAM	2.89	9	2.35
8080	40	8-bit MPU (8080A, AM9080)	.99	10	.91
8085A	40	8-bit MPU, 3MHz	4.69	10	4.11
8085A-2	40	8-bit MPU, 5MHz	4.99	9	4.63
80C85	40	8-bit MPU, 3MHz, CMOS	5.75	9	4.49
8086	40	16-bit MPU 5MHz	1.25	30	.99
8086-2	40	16-bit MPU 8MHz	2.49	9	2.12
8088	40	8/16-bit MPU, 5MHz	3.75	10	3.10
8088-2	40	8/16-bit MPU, 8MHz	5.89	9	5.21
80C88	40	8/16-bit MPU, 5MHz, CMOS	6.49	10	5.25
80C97	16	3-state hex buffer	.89	25	.75
8155-2	40	Static RAM, I/O, timer, 5MHz	5.89	10	5.21
81C55-5	40	SRAM, I/O, timer, 5MHz, CMOS	4.49	9	3.99
8212	24	8-bit input/output	4.99	17	4.19
8216	16	Bus driver	1.89	25	1.61
8224	16	Clock generator/driver	.99	24	.89
8226	16	Bus driver	2.99	25	2.51
8228	28	System controller	.99	13	.87
8237-5	40	DMA controller 5MHz	1.99	9	1.59
82C37-5	40	DMA controller, 5MHz, CMOS	5.49	9	4.60
8243	24	Input output expander	5.49	14	5.11
82C43	24	Input output expander CMOS	6.29	16	5.28
8250	40	Communications interface	4.89	10	4.31
82C50	40	Communications interface CMOS	5.99	10	5.19
8251A	28	Prog com interface	3.99	13	3.30
82C51A	28	Prog com interface, CMOS	3.69	13	3.11
8253-5	24	Prog interval timer	4.99	14	4.10
82C53-5	24	Prog int timer, CMOS	4.79	15	4.22
8254	24	Prog int timer, 8MHz	3.69	14	3.10
82C54	24	Prog int timer CMOS, 8MHz	4.09	15	3.61
8254-2	24	Prog int timer, 10MHz	4.75	18	3.99
82C54-2	24	Prog int timer CMOS, 10MHz	4.29	15	3.86
8255-5	40	Prog peripheral int, 5MHz	4.75	9	3.99
82C55-5	40	Prog peripheral int, 5MHz CMOS	2.99	9	2.61
82C55-8	40	Prog peripheral int, CMOS, 8MHz	3.29	9	2.76
82C55-10	40	Prog peripheral int, CMOS, 10MHz	3.99	9	3.29
8257	40	Prog DMA controller	1.49	9	1.19
8257-5	40	Prog DMA controller	1.99	9	1.59
8259	28	Prog interrupt controller	1.79	14	1.62
8259-2	28	Prog interrupt controller	1.89	15	1.71
82C59-2	28	Prog interrupt cont. CMOS	2.19	12	1.67
8272	40	FDC SS/DD (UPD765, R6765)	.99	10	.79
8279	40	Programmable keyboard int	7.99	9	7.44
8279-5	40	Programmable keyboard int	8.99	9	8.33
82C82	20	Octal latch, CMOS	4.99	24	4.22
8283	20	Octal latch	2.99	18	2.61
8284A	18	Clock generator & driver	4.89	20	4.53
82C84	18	Clock gen & driver, CMOS	5.99	20	4.75
8286	20	Octal bus trans (DP8304)	1.99	18	1.59
8287	20	Octal bus trans (DP8303)	2.89	20	2.40
82C87	20	Octal bus trans CMOS	4.99	20	4.10
8742	40	8-bit MCU, 2KB EPROM	12.99	9	10.75
8748H	40	8-bit, 1KB EPROM, 64B, 11MHz	24.99	9	23.99
8748P	40	As above only 1-time prog	18.99	9	18.25
8749H	40	8-bit, 2KB EPROM, 128B, 11MHz	34.99	9	33.99
8749P	40	As above only 1-time prog	26.99	9	25.99
8751H	40	8-bit, 4KB EPROM, 12MHz	29.99	9	27.99
87C51	40	8-bit 4KB EPROM, 12MHz	19.99	9	19.11
P87C51	40	As above only 1-time prog	12.99	9	11.86
8755A	40	2048 x 8 EPROM with I/O	9.99	9	8.25
A80286-12	68	(PGA) 16-bit CPU, 12MHz	5.99	7	4.55
P82C206	84	(PLCC) Int cont w/DMA	9.99	15	6.99

Microprocessors

Upgrade the performance of your system by replacing the processor. Simply swap the existing processor with a faster CPU from the same family. Consult your system's manual for potential jumper changes and CPU support.



Part #	Description	Price
80586-200MMX	Intel Pentium Processor, 200MHz	119.99
80586-233MMX	Intel Pentium Processor, 233MHz	124.99
P2-266	Intel Pentium II Processor, 266MHz	229.99
P2-300	Intel Pentium II Processor, 300MHz	349.99
P2-333	Intel Pentium II Processor, 333MHz	359.99
P2-400	Intel Pentium II Processor, 400MHz	479.99
P2-450	Intel Pentium II Processor, 450MHz	699.00

Call for volume pricing

Z80 Series

Features powerful instruction set ideal for multi-tasking operations. For use with 8000 series interface circuits.

Part #	# Pins	MHz	Description	Each	Bulk	
					Qty	Price
Z80-CPU	40	2.5	8-bit MPU	2.19	9	1.49
Z80A-CPU	40	4.0	8-bit MPU	1.99	10	1.60
Z80B-CPU	40	6.0	8-bit MPU	2.19	10	1.99
Z80C-CPU	40	8.0	8-bit MPU	3.19	10	2.55
Z80-CTC	28	2.5	Counter timer	1.49	20	1.19
Z80A-CTC	28	4.0	Counter timer circuit	1.99	15	1.60
Z80B-CTC	28	6.0	Counter timer circuit	2.19	15	1.86
Z80A-DART	40	4.0	Dual asynch. receiver/trans	3.19	10	2.55
Z80A-DMA	40	4.0	Direct memory access	2.99	10	2.35
Z80-PIO	40	2.5	Parallel I/O controller	1.49	10	1.19
Z80A-PIO	40	4.0	Parallel I/O controller	1.65	9	1.29
Z80B-PIO	40	6.0	Parallel I/O controller	2.69	10	2.15
Z80A-SIO/0	40	4.0	Serial I/O controller	2.69	10	2.15
Z80B-SIO/0	40	6.0	Serial I/O controller	4.99	10	3.75
Z80-SIO/1	40	2.5	Serial I/O controller	2.69	10	2.15
Z80A-SIO/1	40	4.0	Serial I/O controller	2.69	10	2.15
Z80A-SIO/2	40	4.0	Serial I/O controller	2.99	10	2.39
Z80B-SIO/2	40	6.0	Serial I/O controller	3.19	10	2.55
Z80A-SIO/9	40	4.0	Serial I/O controller	3.99	10	2.99
Z84C0008	40	8.0	8-bit MPU CMOS	4.99	10	3.75
Z84C2008	40	8.0	Parallel I/O cont CMOS	4.99	10	3.75
Z84C3008	28	8.0	Counter Timer CMOS	4.99	15	4.19
Z84C4008	40	8.0	Serial I/O cont CMOS	7.99	10	6.35
Z84C4208	40	8.0	Serial I/O cont CMOS	5.99	10	4.75
Z0765A08	40	8.0	SS/DD floppy disk cont	1.29	10	.99
Z0853006	40	6.0	Serial Comm. Controller	5.49	10	4.35
Z0853606	40	6.0	Counter timer I/O	6.99	10	5.39

Digital Signal Processors

Analog Devices 2100 series DSPs are flexible and economical solutions for your DSP applications. These processors are code-compatible to protect your software development investment and feature different memory and serial port configurations to fit your project requirements.

Part#	Speed	RAM	Ser Ports	Each	Bulk	
					Qty	Price
ADSP2101KP66	66MHz	2Kx24	2	29.99	19	27.99
ADSP2115KP80	80MHz	1Kx24	2	18.99	19	17.99



Atmel AT89C Series

With these flash memory-based microcontrollers from Atmel you can achieve fast, easy reconfigurability in any 80C51-based product since they are compatible with MCS-51™ products. Their in-system reprogrammability shortens the development cycle while the static state clock mode saves power.

Part #	# Pins	Description	Each	Bulk	
				Qty	Price
AT89C1051-24P	20	8-bit MCU, 24MHz, 1Kb flash memory	3.29	18	2.87
AT89C2051-12P	20	8-bit MCU, 12MHz, 2Kb flash memory	3.89	18	3.42
AT89C2051-24P	20	8-bit MCU, 24MHz, 2Kb flash memory	4.49	18	3.99
AT89C2051-24S	20	8-bit MCU, 24MHz, 2Kb flash memory SOIC	4.89	30	4.33
AT89C51-20PC	40	8-bit MCU, 20MHz, 4Kb flash memory	4.69	10	4.18
AT89C51-24PC	40	8-bit MCU, 24MHz, 4Kb flash memory	4.99	9	4.33
AT89C51-24JC	44	8-bit MCU, 24MHz, 4Kb flash memory PLCC	5.49	18	5.11
AT89C52-12PC	40	8-bit MCU, 12MHz, 8Kb flash memory	9.99	10	8.42
AT89C52-24PC	40	8-bit MCU, 24MHz, 8Kb flash memory	5.49	10	4.92
AT89C52-24JC	44	8-bit MCU, 24MHz, 8Kb flash memory PLCC	5.99	27	5.41
AT89C55-24PC	40	8-bit MCU, 24MHz, 20Kb flash memory	11.99	10	11.01

StarTech UARTs

Get 32 bytes transmit and receive FIFO for faster baud rates with the economical ST16C650. This universal asynchronous receiver and transmitter features programmable baud rate generator for clock rates from 50Hz to 448KHz.

- 32 byte receive FIFO with error flags
- Pin selectable interface mode
- Software/Hardware flow control
- Sleep mode (800µA stand-by)
- Low operating current (1.5mA typ.)

Part #	# Pins	Description	Each	Bulk	
				Qty	Price
ST16C650CJ	44*	32-bit UART w/deeper FIFO	5.49	15	4.91
ST16C650CP	40	32-bit UART w/deeper FIFO	5.49	10	4.91
ST16C550CJ	44*	16-bit UART w/FIFO	3.99	15	3.52
ST16C550CP	40	16-bit UART w/FIFO	3.99	10	3.52

*PLCC

ISD Voice Record/Playback Chips

Create your own portable voice recorder with these single-chip solutions. Cascadable versions allow multiple devices to support longer record times. A single +5 VDC power supply and low standby current make portable applications easy to implement.

- 28-pin DIP devices
- Durations from 20 to 90 seconds
- 100,000 records cycles typical, 100-year retention
- On-chip clock source
- Single +5 VDC power supply

Part#	Sample Rate	Standby Cascadable	AGC	Current	Each	Bulk	
						Qty	Price
ISD1420P	6.4kHz	No	No	0.5µA	9.99	12	8.99
ISD1020AP	6.4kHz	Yes	Yes	1.0µA	10.99	15	9.15
ISD2590P	5.3kHz	Yes	No	1.0µA	12.99	15	11.21



Motorola Series

From the leader in communications technology, these hybrid linear devices are ideal for interfacing displays, keyboards, serial I/O and more to your project.

Part #	# Pins	Description	Bulk	
			Each	Qty Price
MC1330	8	Low level video detector	3.89	50 3.11
MC1350	8	IF amp, 12V	.65	50 .55
MC1357P	14	IF amp and quad detector	1.29	25 1.09
MC1358	14	TV IF amp	.59	25 .45
MC1374P	14	TV modulator	1.49	25 1.19
MC1377P	20	RGB to PAL/NTSC encoder	1.49	18 1.28
MC1408-6	16	6-bit D/A converter	1.39	25 1.13
MC1648P	14	MECL volt. controlled oscillator	3.79	25 3.15
MC3340	8	Electronic attenuator	1.29	50 1.11
MC3373	8	IR remote control amp/detector	2.29	50 1.75
MC3403P	14	Quad low power OP AMP	.49	25 .39
MC3470	18	Floppy disk read amp system	.99	21 .79
MC3479	16	Stepper motor driver, bipolar	4.99	25 4.15
MC3486	16	Quad RS422/3 receiver, 3-state	.69	25 .59
MC3487	16	Quad RS422 driver, 3-state	.69	25 .59
MC4024	14	Dual volt controlled multivibrator	1.69	25 1.35
MC4044	14	Phase frequency detector	7.99	25 7.31
MC12022AP	16	Low-power 2-modular prescaler	4.75	25 4.21
MC13077P	20	Advanced PAL/NTSC encoder	4.75	18 4.21
14411	24	Bit rate generator	5.95	15 5.10
14419	16	2-of-8 keypad to binary encoder	.99	22 .75
14433	24	CMOS 35 digit A/D converter	5.49	15 4.87
14490	16	CMOS hex bounce eliminator	3.89	25 3.35
14495	16	CMOS hex to 7-segment driver	3.19	25 2.39
14499	18	CMOS 4-digit, 7-segment driver	3.99	21 3.15
MC33063AP1	8	DC-DC Converter control circuit	1.19	50 .98
MC33064P-5	3	Under V sens -40 to +85 TO-92	1.29	100 .99
MC34014P	18	Telephone speech network w/Dial	1.59	20 1.31
MC34018P	28	Voice switched spkrphone circuit	4.19	13 3.74
MC34060AP	14	Prec. switchmode pulse width mod	1.19	25 .98
MC34072P	8	Dual OP AMP single supply	.79	50 .68
MC34074P	14	Quad OP AMP single supply	1.09	25 .87
MC34084P	16	Quad JFET Hi-part OP AMP	1.59	25 1.31
MC34064P-5	3	Under V sens 0 to +70 TO-92	1.09	100 .87
MC33074P	14	Quad OP AMP, EXT TEMP, Single	1.29	25 1.07
MC33078P	8	Dual low-noise OP AMP	.79	50 .68
MC33079P	14	Quad low-noise OP AMP	1.29	25 1.07
MC145026	16	CMOS remote control encoder	.99	25 .79
MC145027	16	CMOS remote control dec (5-bit)	1.09	25 .85
MC145028	16	CMOS remote control dec (9-bit)	1.09	25 .99
MC145106P	18	CMOS PLL frequency synthesizer	2.19	21 1.69
MC145151	28	Par-in PLL freq synthesizer	9.99	13 9.02
MC145406	16	CMOS RS232 driver/receiver	1.49	25 1.18
MC145407P	20	+5V only, driver/receiver	2.99	18 2.58
MC145436P	14	DTMF decoder	2.49	25 1.99
MC146818A	24	8-Bit real time clock plus RAM	3.69	15 2.99
MC146818P	24	8-Bit real time clock plus RAM	3.99	15 3.05

Motorola Linear and Interface Integrated Circuits

This comprehensive 2 volume set contains data sheets on Motorola's linear and interface ICs. Includes sections for amplifiers and comparators, power supplies, power/motor control, voltage references, data conversion, interface, communication, consumer electronics, automotive electronics and other linear circuits. Includes comprehensive index and cross reference.



MOT128 2 volumes, 2,722 pages, 1996, 3 lbs. \$19.99

Maxim Series

Maxim is most popular for RS-232C interface circuits powered by a single +5V supply. Internal power converters make devices ideal for battery powered systems.

Part #	# Pins	Description	Bulk	
			Each	Qty Price
MAX202CPE	16	RS232 trans/receiver w/1uF	2.69	25 2.27
MAX208CNG	24	+5V quad RS-232 trans	6.49	15 5.61
MAX231CPD	14	+15V and +12V dual RS232 transmitter/receiver	2.79	25 2.25
MAX232ACPE	16	+5V HighSpeed dual RS232 T/R	3.99	25 3.17
MAX232CPE	16	+5V dual RS232 trans/rcvr	1.39	25 1.21
MAX232EPE	16	+5V dual RS232 trans/rcvr 40°C to +85°C	2.49	25 2.22
MAX232CWE*	16	5V dual RS232 trans/rcvr	1.99	45 1.65
MAX233CPP	20	MAX232 with no external components required	5.29	18 4.85
MAX238CNG	24	+5V quad RS232 trans/rcvr 3"	4.89	15 4.38
MAX239CNG	24	+5V/+12V RS232 3Xmit/5Rec	5.99	15 5.11
MAX308CPE	16	8-channel CMOS analog MUX	4.89	25 4.21
MAX333CPP	20	Quad SPDT CMOS switch	5.39	18 4.98
MAX630CPA	8	CMOS step-up switching reg.	4.49	50 3.99
MAX660CPA	8	CMOS mono volt. converter	4.99	50 4.28
MAX663CPA	8	+5V adj voltage reg CMOS	3.29	50 2.74
MAX666CPA	8	+5V adjustable voltage reg with low power detect CMOS	3.99	50 3.15
MAX666CSA*	8	+5V adj voltage reg with low power detect CMOS	4.49	25 3.59
MAX680CPA	8	+5V to +10V voltage converter	3.29	50 2.65
MAX690CPA	8	MPU watchdog/battery, 35ms	4.19	50 3.23
MAX691CPE	16	MPU watchdog/battery, 35ms	5.39	25 4.61
MAX691CWE*	16	MPU watchdog/battery, 35ms	7.49	45 5.99
MAX692CPA	8	MPU watchdog/battery, 35m3	4.99	50 4.52
MAX694CPA	8	MPU supervisory circuit/140ms	5.99	50 4.75
MAX695CPE	16	MPU supervisory circuit/140ms	5.79	25 5.21
MAX699CPA	8	Pwr, reset & watchdog cont	4.29	20 3.39
MAX732CPA	8	+12V current-mode PWM reg	3.99	50 3.61
MAX903CPA	8	Hi-Speed LP Volt. comparator	5.79	50 4.97
MAX1232CPA	8	MPU precision volt monitor	2.19	50 1.75
MAX1487CPA	8	RS485/RS422 Trnc. 2.5MBPS	2.29	50 1.75

* Small Outline (surface mount)

Siliconix

Siliconix's products bridge the interface gap between real-world analog signals and digitally operated microprocessors, providing both discrete and integrated solutions.

				Bulk	
Part #	Pins	Description	Each	Qty	Price
DG201ACJ	16	Quad Mono SPST Switch, On-Off	1.39	25	1.22
DG202CJ	16	Quad Mono SPST Switch, Off-On	1.39	25	1.22
DG211CJ	16	4-ch. Mono SPST Switch, On-Off	1.39	25	1.22
DG212CJ	16	4-ch! Mono SPST Switch, Off-On	1.39	25	1.22
DG403DJ	16	LP Mono 2 SPDT Switch	3.39	25	2.91
DG408DJ	16	8-channel single ended MUX	3.39	25	2.91
DG409DJ	16	Dual 4-channel Differential MUX	3.39	25	2.91
DG411DJ	16	Pr. Mono Quad SPST Sw. On-Off	2.69	25	2.32
DG412DJ	16	Pr. Mono Quad SPST Sw. Off-On	2.99	25	2.53
DG419DJ	8	Pr. Mono SPDT Switch, On-Off	1.89	50	1.68
DG508ACJ	16	8-channel single ended MUX	2.39	25	2.08
DG509ACJ	16	Dual 4-channel Multiplexer	2.39	25	2.08
J177	TO-92	P-channel JFET Analog switch	.31	100	.27
SD210DE	TO-72	N-channel Lateral DMOS FET	2.19	100	1.91
VN0300L	TO-92	N-channel MOS Transistor, 9ns	.55	100	.48
VN0300M	TO-237	N-channel MOS Transistor, 9ns	.79	100	.69
VN10KM	TO-237	N-channel MOS Transistor	.55	100	.48
VN10LM	TO-237	N-chan Enhanced Mode MOS Trans.	.65	100	.58
VP0300L	TO-92	P-channel MOS Transistor	.79	100	.69
VP0300M	TO-237	P-channel MOS Transistor	.79	100	.69
2N7000	TO-92	N-channel MOS Transistor, 7ns	.25	100	.22
2N7002	SOT-23	N-channel MOS Transistor, 7ns	.20	100	.17

Analog Devices

Analog Devices manufactures sophisticated components and sub-systems for use in signal processing and data acquisition.

Part #	# Pins	Description	Bulk	
			Each	Qty Price
ADG201AKN	16	Quad SPST switch	1.35	20 1.11
ADM202EARN	16	2-channel RS-232 line driver/rec	1.89	20 1.72
ADM1232ARN	8	Reset generator	1.59	50 1.41

ANALOG DEVICES, CONT.

Part #	# Pins	Description	Bulk	
			Each	Qty Price
AD548JN	8	Bifet Op Amp, LP precision	1.59	50 1.41
AD557JN	16	8-bit Micro Complete DAC	5.79	20 5.18
AD558JN	8	As above +2 calib. volt ranges	10.99	25 9.72
AD574AKN	28	12-bit Mono A/D Converter	22.99	13 20.12
AD580JN	TO-52	Hi-Precision 2.5V IC Ref	2.89	100 2.51
AD586JN	8	Hi-Precision 5V IC Ref	4.69	50 3.97
AD620AN	8	Low Power Instrumentation Amp.	8.19	50 7.06
AD633JN	8	4 Quadrant Analog MUX	5.69	50 4.82
AD705JN	8	PICDAMP input current Bi Op Amp	1.39	50 1.18
AD707JN	8	Ultra Low Drift Op. Amp.	1.49	50 1.27
AD711JN	8	Precision Hi-Speed BIFET Op. Amp.	1.29	50 1.13
AD712JN	8	Dual Hi-Speed BIFET Op. Amp.	1.49	50 1.32
AD797AN	8	Ultra-low distortion/noise Op Amp	4.69	50 3.97
AD810AN	8	Video Op. Amp. with Disable	2.99	50 2.62
AD823AN	8	Dual 16MHz R-to-R JFET Op Amp	4.49	50 3.63
AD828AN	8	Dual, Low-power Video Op Amp	4.49	50 3.63
AD829JN	8	Hi-Spd Low Noise Video Op Amp	4.19	50 3.58
AD7523JN	16	8-bit Multiplying D/A Conv	2.89	20 2.42
AD7524JN	16	8-bit Buffer, Mult. DAC CMOS	3.59	20 3.16
AD7528JN	20	Dual 8-bit Buffer, Mult. DAC	3.19	18 2.73
AD7820KN	20	8-bit ADC w/track hold 0-6.4 KHz	11.69	18 10.42
AD7821KN	20	8-bit ADC w/track hold 0-100 KHz	12.29	18 11.13
AD8402ANIO	14	Dual 8-bit Digital Potentiometer	4.69	25 3.97
AD8532AN	8	Single-Supply Amp, 250mA outp	1.89	50 1.71
AD9066JR	28	Dual 6-bit A/D Conv 60MSPS SDIC	6.99	13 5.98
OP27GP	8	Low Noise Precision Op Amp	2.69	50 1.82
OP37EP	8	Low Noise Prec. Hi-Spd Op Amp	3.09	50 3.07
OP77GP	8	Ultralow offset Volt Op Amp	1.29	50 1.13
OP90GP	8	Precision Lo-Volt. Microp Op Amp	2.39	50 2.02
OP97EP	8	Low-power, Hi-Precision Op Amp	4.69	50 3.98

RCA Linear

Transistor and switching device arrays reduce PC board device count for improved reliability. Ideal for driving high-power switches.

Part #	# Pins	Description	Bulk	
			Each	Qty Price
CA3046	14	Transistor array	.49	25 .39
CA3059	14	Zero voltage switch	1.39	25 1.09
CA3080	8	Transconductance op amp	.69	40 .55
CA3081	16	NPN transistor array	.55	25 .45
CA3082	16	NPN common collector array	.79	25 .65
CA3083	16	NPN transistor array	.59	25 .49
CA3086	14	NPN transistor array	.55	25 .44
CA3096	16	NPN/PNP transistor array	1.49	25 1.19
CA3126	16	TV chroma signal generator	2.99	25 2.35
CA3140	8	MOS operational amplifier	.55	50 .45
CA3146	14	High-voltage transistor array	.55	25 .45
CA3160	8	MOS operational amplifier	.99	50 .79
CA3161	16	BCD TO-7 segment decoder/driver	1.79	25 1.54
CA3162	16	A/D conv for 3-1/2 digit readout	6.99	25 5.79
CA3183	16	NPN transistor array	1.29	25 .85

A/D and D/A Converters

6 to 16-bit digital to analog and analog to digital converters. Mux inputs allow signal selection from multiple sources.

Part #	# Pins	Description	Bulk	
			Each	Qty Price
ADC-0804	20	8-bit A/D converter	2.29	18 1.89
ADC-0808	28	8-bit A/D converter	4.99	13 4.21
ADC-0809	28	8-bit A/D conv. 8-channel mux	3.39	13 2.75
ADC-0816	40	8-bit A/D conv. 16-channel mux	16.99	9 13.50
ADC-0817	40	8-bit A/D conv. 16-channel mux	9.99	9 8.99
ADC-0820	20	8-bit hi-speed MPU comp. A/D	6.79	18 5.98
ADC-0831	8	8-bit serial A/D converter	1.89	40 1.59
ADC-0834	14	8-bit serial I/O A/D converter	4.69	25 3.99
ADC-1205CCJ-1	24	12-bit + sign A/D converter	49.99	17 47.99
DAC-0800	16	8-bit D/A converter	1.79	20 1.45
DAC-0801	16	8-bit D/A converter	1.99	25 1.65
DAC-0806	16	6-bit D/A converter	1.39	25 1.13
DAC-0808	16	D/A converter (DAC08, MC1408)	1.39	25 1.15
DAC-0830	20	8-bit up D/A converter	5.79	20 5.11
DAC-0832	20	8-bit D/A converter 0.20 lin	4.75	18 4.01
MB40576	16	6-bit hi-speed video A/D Con.	4.99	25 4.21
MB87020	40	16-bit A/D or D/A CMOS	21.99	9 20.11
MC1408-6	16	6-bit D/A converter (DAC0806)	1.39	25 1.13
TLC549IP	8	8-bit A/D Converter 0.5lsb	1.99	50 1.60
14433	24	3-1/2 digit A/D converter	5.49	15 4.87

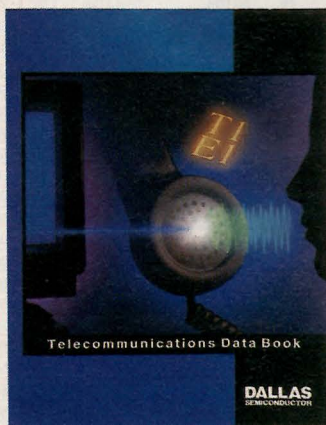
Computer Interfaces, UARTs and Misc.

Part #	# Pins	Description	Each	Qty Price	Bulk
TR1602	40	UART (AY5-1013)	3.99	10	3.20
1793	40	FDC SD/DD (true D bus) (MB8877)	7.99	9	5.99
HV2116P	24	8-channel hi-voltage analog switch	9.99	15	7.65
CTS256AL2	40	Code-to-Speech processor	4.99	10	3.75
2651	28	Prog communications interface	3.99	15	3.15
37C65CP	40	FDC with on-chip data separator	6.99	10	5.40
37C65CLJP	40	FDC with data separator	10.99	10	9.15
4702	16	Prog bit rate generator	9.99	25	7.99
COM5016	18	Dual baud rate generator	6.99	20	5.55
IM6402	40	UART	7.99	11	6.49
7220	40	Graphics display controller	13.99	9	11.50
AY5-8116	18	Dual baud rate generator	4.89	20	3.90
AY3-8910	40	Sound generator chip	10.99	10	9.25
9301	16	BCD-to-decimal decoder	.29	30	.22
9304	16	Dual full adder	.69	25	.49
9316	16	4-bit binary counter	.49	25	.39
9328	16	8-bit shift register	.99	25	.69
9334	16	8-bit addressable latch	.69	25	.52
9401	14	CRC generator/checker	5.99	25	4.75
9602	16	Dual retrig mono multivibrator	.65	25	.55
NS16450	40	16-bit UART	6.45	10	5.40
NS16C450	40	16-bit UART, CMOS	3.89	9	3.10
NS16550	40	High speed 16-bit UART	6.99	9	6.22
CD22402E	24	CMOS LSI synch generator	8.99	15	7.15
AM29827APC24	10-bit	buffer/driver	.99	15	.75
AM29827PC	24	10-bit buffer/driver	.89	15	.65
73M5501P	40	High Speed 16-bit UART	5.49	10	4.99
TMS99532	18	Texas Instruments modem chip	3.99	20	3.05

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Dallas Semiconductor products are unique devices for leading edge developers. These reference books describe the operation and use of their devices from silicon-based timed circuits and digital potentiometers to touch memory, software identification and T1 communications products.



DSRAM 1024 pages, 1994, 3 lbs\$6.99
Nonvolatile memories, time-keeping, intelligent sockets, battery backup, ultra low-power static RAM and more

DSSYS 538 pages, 1995, 2 lbs\$7.99
System extension products - CPU Supervisors, Digital Potentiometers and Timed Circuits

DSTELE 512 pages, 1995, 2 lbs\$7.99
Telecommunications products - Voice Compression, T1 CSU's, Line Interfaces, Framers and more

www.jdr.com

Dallas Semiconductor

Unique devices for timekeeping, non-volatile RAM, intelligent sockets, battery backup and more.



Part #	# Pins	Description	Each	Qty Price	Bulk
DS1202	8	Serial timekeeping chip	3.99	49	3.22
DS1210	8	NV controller chip	3.89	50	3.35
DS1213B	28	Smartsocket 16k/64k bit	10.49	13	9.51
DS1213C	28	Smartsocket 64k/256k bit	10.99	13	10.02
DS1213D	32	Smartsocket 64k/256k/1M bit	14.99	11	13.23
DS1215	16	Phantom time chip	9.49	25	7.75
DS1216B	28	Smartwatch/RAM 16k/64k bit	19.99	13	15.99
DS1216C	28	Smartwatch/RAM 64k/256k bit	20.99	13	19.23
DS1216E	28	Smartwatch/ROM 64k/256k bit	22.99	13	19.99
DS1220AB	24	16k NV SRAM 200ns*	12.99	14	10.75
DS1220V	24	16k NV SRAM 200ns**	9.49	14	8.31
DS1225AD	28	64k NV SRAM 200ns**	14.49	12	13.01
DS1225AD-150	28	64k NV SRAM 150ns**	14.99	12	13.71
DS1225Y	28	64k NV SRAM 200ns	14.99	12	13.15
DS1225Y-150	28	64k NV SRAM 150ns	15.99	12	14.42
DS1227	20	Kickstarter chip	7.99	18	6.19
DS1228	16	+5V Powered dual RS232	6.99	25	5.55
DS1230AB	28	256k NV SRAM 200ns*	20.99	12	19.63
DS1230V	28	256k NV SRAM 200ns**	21.99	12	20.32
DS1231-20	8	Power monitor chip, 0 to 70°C	5.99	50	4.60
DS1232	8	Micromonitor chip	2.89	49	2.55
DS1233	3	5V Econo reset, T0-92, 0 to 200°C	1.79	500	1.31
DS1233MS-5	8	5V Econo reset, SOIC	2.89	97	2.48
DS1237-1	16	256k DRAM nonvolatile, 8ms	9.99	25	9.11
DS1244Y	28	256k NV SRAM w/clock	39.99	12	37.07
DS1248Y-150	32	128kx8 NV SRAM w/clock	49.99	10	46.31
DS1259	16	Battery manager chip	7.99	20	6.55
DS1260	16	Smart battery (-100)	9.99	12	8.92
DS1275	8	Line-powered transceiver	3.99	50	3.19
DS1287A	24	Real time clock with RAM clr	7.89	14	7.15
DS1302	8	Trickle charge timekeeper	4.49	50	3.75
DS1307	8	Serial real-time clock, 64 x 8	3.39	50	2.81
DS1307	24	RAMified RTC 4k x 8	9.99	14	9.03
DS1602	8	Elapsed time counter	4.29	50	3.63
DS1613C	28	Partitioned Smartsocket 256k	16.99	13	15.22
DS1613D	32	Partitioned Smartsocket 1M	17.99	11	15.98
DS1620	8	Digital thermometer	5.89	49	5.16
DS1632	16	P.C power fail and reset	5.99	25	4.60
DS1643-120	28	Nonvolatile timekeeping RAM	28.99	12	25.16
DS1667-010	20	Digital resistor w/Op Amp 10k	6.75	18	5.98
DS1820	3	One-wire thermometer, T0-92	7.99	50	6.35
DS1821	3	Prog. digital thermostat, T0-92	3.89	50	3.20
DS1821T	3	Prog. digital thermostat, T0-220	4.59	50	3.65
DS1833-5	3	5V reset, -40°C to 85°C, T0-92	1.99	50	1.55
DS1992	NA	1k-bit memory (microcan pack)	6.99	20	5.70
DS1993	NA	4k-bit memory (microcan pack)	11.99	20	9.55
DS2151Q	44	T1 transceiver, PLCC	39.99	20	35.63
DS2400	3	Serial number, T0-92	2.39	50	1.69
DS2401	3	Silicon serial number T0-92	1.99	100	1.62
DS2404	16	EconoRAM (4k bits SRAM)	9.99	25	7.99
DS12887	24	Real-time clock 114 x 8 RAM	7.49	14	6.98
DS12887A	24	As above w/RAM clear feature	8.89	14	7.85
DS80C320MCG	40	25MHz high speed MCU	12.99	9	11.15

* Vcc=5V+/-5%, write protect voltage 4.5V-4.75V

** Vcc=5V+/-10%, write protect voltage 4.25V-4.5V

Intersil/Harris

The Intersil/Harris ICL series is ideal for stand alone measurement applications.

Part #	# Pins	Description	Each	Qty Price	Bulk
ICL7106CPL	40	3-1/2 digit LCD A/D	2.59	9	2.19
ICL7107CPL	40	3-1/2 digit LED A/D	2.59	9	2.19
ICL7109CPL	40	12-bit A/D converter	5.99	9	5.21
ICL7660CPA	8	CMOS voltage cvtr	1.29	50	.99
ICL7663SCPA	8	CMOS prog pos volt reg	2.69	50	2.15
ICL8038CCPD	14	VCO/precision wave gen	3.69	25	2.99
ICL8211CPA	8	Prog voltage detector	1.89	50	1.45
ICM7555IPA	8	CMOS 555 timer	.59	50	.49
ICM7556IPD	14	CMOS 556 timer	1.19	25	.99

Interface Circuits

Design high-speed parallel or serial busses with these transceivers. Ideal for systems requiring more loads than TTL technology can control.

Part #	# Pins	Description	Each	Qty Price	Bulk
DP8304	20	8-bit bi-directional trans	1.99	18	1.59
DS8833	16	Quad 3-state bus trans	2.49	25	1.99
DS8835	16	Quad inverting bus trans	1.99	25	1.59
DS8837	16	Hex unified bus trans	1.59	25	1.35
DS8838	16	Quad unified bus trans	1.39	25	1.10
8T95	16	Hex 3-state buffer/inv	.89	25	.75
8T96	16	Hex 3-state buffer/inv	.89	25	.75
8T97	16	Hex 3-state buffer/inv	.89	25	.75
8T98	16	Hex 3-state buffer/inv	.89	25	.75

Clock and Phone Circuits

Microprocessor-compatible clock circuits and DTMF touch-tone generators and dialers for your next project.

Part #	# Pins	Description	Each	Qty Price	Bulk
BQ4287MT	24	Real Time Clock w/NVRAM contr	12.29	15	10.99
CD22202E	18	Low Power DTMF Receiver	3.99	20	3.36
MC145436P	14	DTMF decoder	2.49	25	1.99
MM58167	24	MPU Real Time Clock	6.99	15	5.55
MM58274	16	MPU 24-HR Real Time Clock	9.49	25	8.25
MSM5832	18	MPU Clock	4.99	20	4.21
RTC72421B	18	Epson Real Time Clock Module	6.79	20	5.92
TP5088N	14	DTMF Tone Dialer	2.99	25	2.51
TP5089N	16	DTMF TouchTone Generator	2.99	25	2.61
75T202	18	DTMF Receiver, Low-Power	5.99	24	5.11



Dallas Digital Potentiometers

Dallas Semiconductor digital pots offer advantages in device control, reliability, power consumption, accuracy, manufacturing, and packaging options.



Part #	# Pins	Description	Each	Qty Price	Bulk
DS1267-010	14	Dual digital pot 10k	4.99	25	4.33
DS1267-050	14	Dual digital pot 50k	4.99	25	4.57
DS1267S-010	16	Dual digital pot 10k*	5.99	45	5.11
DS1667-010	20	Digital resistor w/Op Amp 10k	6.75	18	5.98
DS1669-10	8	Electronic digital rheostat 10k	4.29	49	3.67
DS1669S-10	8	Electronic digital rheostat 10k*	4.59	90	4.07
DS1801	14	Dual audio taper pot	4.59	18	3.99
DS1802	20	Dual audio taper pot-pushbutton	5.19	18	4.22
DS1803-010	14	Addressable dual taper pot 10k	4.29	25	3.68
DS1803Z-010	14	Addressable dual taper pot 10k*	4.59	45	3.99

Part #	# Pins	Description	Each	Qty Price	Bulk
DS1804-010	8	Trimmer pot 10k	2.59	49	2.21
DS1804-050	8	Trimmer pot 50k	2.59	49	2.21
DS1804Z-010	8	Trimmer pot 10k*	2.59	97	2.13
DS1806-010	20	Digital sextet pot 10k	6.99	19	6.15
DS1807	14	Addressable dual audio taper pot	4.59	18	3.98
DS1867-10	14	Dual digital pot 10k w/EEPROM	5.99	25	5.23
DS1868-10	14	Dual digital pot 10k	4.29	25	3.67
DS1868-50	14	Dual digital pot 50k	4.29	25	3.67
DS1868S-10	16	Dual digital pot 10k*	4.39	45	3.71

*SOIC

Note complete info in book DSSYS

Linear

The LM741 is a direct, plug-in replacement for the 709C, LM201, MC1439 & 748. It features overload protection, freedom from oscillation, latch-up protection and more. 500mW max output.



Part#	# Pins	Description	Each	Qty Price	Bulk
OP07CP	8	Precision operational amplifier	.99	50 .89	
LM34CZ	3	Prec. temp sensor, deg F, EXT, TO-92	3.99	100 3.45	
LM34DZ	3	Prec temp sensor, deg F, TO-92	1.79	100 1.47	
LM35CZ	3	Prec temp sensor, deg C, TO-92	4.19	100 3.35	
LM35CH	3	Prec cent. temp. sensor, TO-46	8.99	100 6.99	
TL064	14	Quad JFET in, low-pwr op amp	.79	25 .64	
TL071	8	JFET op amp, low noise	.59	50 .48	
TL072	8	Dual JFET op amp, low noise	.59	50 .46	
TL074	14	Quad JFET op amp, low noise	.65	25 .52	
TL081	8	JFET input operational amp	.49	50 .41	
TL082	8	Dual JFET input op amp	.49	50 .41	
TL083	14	BIFET op. amp (offset adj.)	1.49	25 1.23	
TL084	14	Quad JFET input op amp	.69	25 .58	
LM301	8	Operational amplifier	.45	50 .35	
LM308	8	Operational amplifier	.59	40 .49	
LM310	8	Voltage follower	1.45	40 1.15	
LM311	8	Voltage comparator	.45	40 .35	
LM311H	8	High-perf volt comp, TO-5	1.75	50 1.39	
LM318	8	Operational amplifier	.69	50 .59	
LM319	14	High-speed dual comparator	.89	25 .75	
LM324	14	Quad operational amplifier	.35	25 .27	
LP324N	14	Quad low power op amp	.69	25 .55	
LM329	3	Prec Zener 100ppm, TO-92	.69	100 .57	
LM331	8	Voltage to freq converter	3.49	40 3.11	
LM334	3	Constant current source, TO-92	.89	100 .75	
LM335	3	Volt mode temp sensor, TO-92	1.19	100 .99	
LM336	3	2.5v voltage reference, TO-92	.79	100 .65	
LM336Z-5.0	3	5.0v voltage reference, TO-92	.79	100 .69	
LM339	14	Quad comparator	.35	25 .29	
LP339N	14	Quad low power comparator	.69	25 .55	
LF347	14	Quad JFET operational amp	.69	25 .55	
LM348	14	Quad 741 operational amp	.49	25 .41	
LF351	8	BIFET operational amp	.55	40 .45	
LF353	8	Dual JFET operational amp	.49	40 .39	
LF355	8	JFET input low-power op amp	.79	44 .67	
LF356	8	JFET gen purpose input op amp	.79	50 .65	
LF357	8	High speed JFET input op amp	.89	50 .75	
LM358	8	Low-power dual op amp	.35	50 .29	
LM380	14	2 watt audio amplifier	.99	25 .85	
LM380N-8	8	Audio power amplifier	.89	40 .69	
LM383	5	8 W audio power amp, TO-220	1.99	45 1.55	
LM384	14	5 W audio amplifier	1.99	25 1.55	
LM385Z-1.2	3	1.2V reference diode, TO-92	.99	100 .79	
LM385Z-2.5	3	2.5V reference diode, TO-92	.99	250 .79	
LM386N1	8	Low-volt audio amp 6V 250mW	.39	40 .29	
LM386N3	8	Low-volt audio amp, 9V 500mW	.69	40 .55	
LM386N4	8	Low-volt audio amp, 16V 700mW	.99	40 .75	
LM392	8	Op amp and comparator	.89	40 .55	
LM393	8	Low-pwr dual volt comparator	.29	40 .25	
LM395T	3	Power transistor, TO-220	2.79	45 2.19	
LF398	8	Sample and hold amplifier	1.59	40 1.25	
LM399H	4	Precision reference, TO-46	3.59	100 3.14	
LF411	8	Single JFET op amp	.89	50 .69	
LF412	8	Dual JFET op amp	1.09	50 .89	
LF441	8	JFET input low-power op amp	1.19	40 .89	
LF442	8	Dual JFET in low-pwr op amp	.89	40 .79	
LF444	14	Quad JFET in low-pwr op amp	1.49	25 1.29	
TL494	16	Pulse width modulator	1.09	25 .89	
TL497	14	Switching voltage regulator	1.49	25 1.19	
LM555	8	Timer	.29	50 .23	
LMC555	8	CMOS timer	.69	50 .55	
LM556	14	Dual timer	.45	25 .35	
LMC556	14	CMOS dual timer	1.19	25 .99	
NE558	16	Quad 555 timer	.69	25 .59	
NE564	16	High-frequency PLL	1.59	25 1.36	
LM565	14	Phase locked loop	1.29	25 .99	
LM566	8	Function generator	.89	40 .69	
LM567	8	Tone decoder	.49	40 .41	
NE571	16	Compander	2.79	25 2.25	
NE592	14	Video amplifier	.25	25 .19	
NE602AN	8	Double balanced mixer/osc	1.99	50 1.79	



LINEAR CONT.

Part #	# Pins	Description	Each	Qty Price	Bulk
LMC662CN	8	CMOS dual op amp	1.39	50 1.08	
LM709	14	Operational amplifier	.99	25 .75	
LM710	14	Differential comparator	.49	25 .39	
LM733	14	Video amplifier	.69	25 .59	
LM741	8	Operational amplifier	.29	50 .23	
LM741H	8	Operational amplifier, TO-5	.99	100 .85	
LM747	14	Dual LM741 op amp	.49	25 .42	
LM747H	10	Dual 741 op amp, TO-5	1.69	50 1.35	
LM831N	16	3V audio power amp	2.69	25 2.15	
LM833N	8	Dual audio op amp	.75	40 .63	
LM837N	14	Quad low-noise op amp	2.19	25 1.75	
SAA1027	16	Stepper motor driver	7.99	25 6.99	
LM1201N	16	200MHz video amp system	2.29	25 1.89	
LM1203N	28	RGB video amp system	2.49	18 1.99	
MC1330	8	Low-level video detector	2.49	50 2.11	
MC1350	8	TV circuit, 12V IF amp	.65	50 .55	
MC1357P	14	IF amp and quad detector	1.29	25 1.09	
MC1358	14	TV IF circuit	.59	25 .45	
MC1377P	20	RGB to PAL/NTSC encoder	1.89	18 1.51	
LM1458	8	Dual operational amplifier	.35	40 .29	
LM1488	14	Quad RS232 driver 75188	.35	25 .29	
DS14C88	14	Quad RS232 driver CMOS 75C188	.89	25 .75	
LM1489	14	Quad RS232 receiver 75189	.35	25 .29	
DS14C89	14	Quad RS232 receiver CMOS 75C189	.89	25 .75	
LM1496	14	Balanced modulator/demod	.89	25 .69	
TCM1520	8	Ring detector	1.29	50 .99	
LM1558H	8	Dual op amp, TO-5	3.29	100 2.59	
MC1648P	14	MECL volt controlled osc	3.99	25 3.15	
LM1830	14	Fluid level detector	2.99	25 2.35	
LM1881	8	Video sync separator	2.69	40 2.25	
ULN2003	16	Darlington trans array	.59	25 .49	
ULN2004A	16	Hi-volt/current Darl. trans array	.59	25 .49	
XR2206	16	Function generator	3.19	25 2.85	
XR2207	14	Voltage-controlled oscillator	2.79	25 2.19	
XR2211	14	FSK demodulator	1.79	25 1.49	
XR2212	16	Precision phase lock loop	3.69	25 3.19	
26C31	16	Quad dif driver CMOS	1.75	25 1.45	
26C32	16	Quad dif receiver CMOS	1.75	25 1.45	
26LS29	16	Quad RS423 driver, 3-state	2.39	25 1.99	
26LS31	16	Quad differential driver	.79	25 .65	
26LS32	16	Quad differential receiver	.79	25 .65	
26LS33	16	Quad dif line receiver	.79	25 .65	
ULN2803A	18	Darl. trans array, hi-volt/hi-cur	.99	21 .75	
ULN2804A	18	CMOS darlington trans array	.99	20 .75	
LM2877	11	Dual audio amplifier SIP	2.29	20 1.81	
LM2901	14	Low-power quad comparator	.35	25 .29	
LM2904N	8	Dual low-power op amp	.49	40 .39	
LM2917	8	Freq to voltage converter	1.49	40 1.39	
LM2917-14	14	Freq to voltage converter	1.09	25 .89	
LM3080N	8	Transconductance op amp	1.29	50 1.08	
TCM3105	16	Asynch FSK voiceband modem	14.99	25 13.11	
MC3302P	14	Quad comparator, low power	.49	25 .39	
MC3357P	16	Low power FM IF	1.99	25 1.66	
MC3373	8	CMOS infrared amp/detector	2.29	50 1.75	
MC3470	18	Floppy disk read amplifier	.99	21 .79	
MC3479	16	Stepper motor driver	4.99	25 4.15	
MC3486	16	Quad RS422/3 receiver 3-state	.69	25 .59	
DS34C86TN	16	Quad CMOS RS-422/3 receiver	1.69	25 1.49	
MC3487	16	Quad RS422 driver 3-state	.69	25 .59	
DS34C87TN	16	Quad CMOS RS-422 driver	1.69	25 1.49	
SG3524	16	Regulating pulse width mod	.89	25 .79	
LM3876T	11	Audio pwr. amp, 40W hi-pwr, TO220	5.49	25 4.62	
LM3900	14	Quad operational amplifier	.69	25 .55	
LM3905	8	Precision timer circuit	.99	40 .79	
LM3909	8	LED flasher	1.19	40 .99	
LM3914	18	Bargraph display driver	1.69	20 1.39	
LM3915	18	3 OB step bargraph driver	1.69	20 1.49	
LM3916	18	VU meter display driver	2.09	20 1.65	
MC4024	14	Dual volt-controlled multivibrator	1.69	25 1.35	
MC4044	14	Phase frequency detector	7.99	25 7.31	
RC4136	14	Quad operational amplifier	.89	25 .79	
RC4151	8	Voltage to frequency converter	1.29	50 .99	
RC4558	8	Dual wide-band op amp	.65	50 .54	
TP5088N	14	DTMF generator for binary data	2.99	25 2.51	
TP5089N	16	DTMF touch-tone generator	2.99	25 2.61	
NE5532	8	Int comp low-noise op amp	.69	50 .55	
NE5534	8	Single low-noise op amp	.69	50 .55	
NE5539	14	Ultra hi-frequency op amp	2.29	25 1.85	
TL7705ACP	8	Supply voltage supervisor	.99	50 .82	
9636	8	RS232C/RS423A dual line driver	1.29	50 .99	
9637	8	RS422 differential line receiver	1.19	40 .99	
LM13700	16	Dual transconductive amplifier	1.49	25 1.10	
75107	14	Dual line receiver	.49	25 .38	
75110	14	Dual line driver	.49	25 .38	
75112	14	Dual line driver	1.99	25 1.66	
75113	16	Dual diff. line driver, 3-state	1.19	25 1.04	
75116	16	Line transceiver	2.49	25 2.16	

LINEAR CONT.

Part #	# Pins	Description	Each	Qty Price	Bulk
75138	16	Quad bus transceiver	.99	25 .79	
75150	8	RS-232 line driver	.69	50 .55	
75154	16	RS-232 line receiver	.89	25 .74	
75160	20	IEEE 488 (GPIB) octal bus trans	2.69	20 2.15	
75172	16	Quad diff. line driver	1.49	25 1.32	
75173	16	Quad diff. line receiver	1.69	25 1.46	
75174	16	Quad RS422 driver 3-state	1.29	25 .99	
75175	16	Quad RS422A/3A rcvr 3-state	1.29	25 .99	
75176	8	Differential bus transceiver	.99	50 .79	
75182	14	Dual line receiver	1.29	25 1.09	
75183	14	Dual differential line driver	1.29	25 1.09	
75188	14	Quad line driver	.35	25 .29	
75189	14	Quad line receiver	.35	25 .29	
751202	18	Low-power DTMF receiver	5.99	24 5.11	
75365	16	Quad TTL to MOS driver	1.49	20 1.18	
75451	8	Dual peripheral driver	.35	50 .29	
75452	8	Dual peripheral driver	.49	55 .39	
75453	8	Dual peripheral driver	.49	50 .39	
75454	8	Dual peripheral driver	.69	50 .55	
75477	8	Dual NAND peripheral driver	.89	50 .65	
75491	14	4-seg LED driver 50 mA/seg	1.19	25 .99	
75492	14	6-digit LED driver 250 mA	1.19	25 .99	

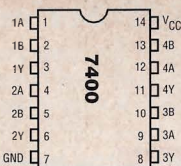
Voltage Regulators

Linear power supply regulators in fixed and variable output configurations generally require DC input about 3V higher than output.

Part#	Volts/Amps	Package	Each	Qty Price	Bulk
LM317K	+ADJ/15A	TO-3	1.89	100 1.65	
LM317LZ	+ADJ/100mA	TO-92	.49	100 .39	
LM317T	+ADJ/15A	TO-220	.45	45 .35	
LM323K	+5V/3A	TO-3	2.99	50 2.35	
LM323T	+5V/3A	TO-220	3.99	50 3.29	
LM330T-5.0	+5V/150mA	TO-220	.79	47 .65	
LM337T	-ADJ/1.5A	TO-220	.89	50 .69	
LM338K	+ADJ/5A	TO-3	4.89	50 3.77	
LM338T	+ADJ/5A	TO-220	2.19	100 1.75	
LM350K	+ADJ/3A	TO-3	3.89	50 3.10	
LM350T	+ADJ/3A	TO-220	2.49	50 1.99	
TL431CLP	ADJ	TO-92	.35	100 .29	
TL783CKC	ADJ/700mA	TO-220	4.99	50 4.33	
LM723	ADJ/150mA	14-pin DIP	.39	25 .32	
LM2575T-5.0	+5V/1A	TO-220	3.29	45 2.79	
LM2575T-12	+12V/1A	TO-220	3.29	45 2.79	
LM2577T-ADJ	ADJ/3A	TO-220	5.39	45 4.25	
LM2930T-5.0	+5V/150mA LDO*	TO-220	.79	300 .65	
LM2940T-5.0	+5V/1A LDO*	TO-220	1.29	300 .99	
LM2940DCT-12	+12V/1A LDO*	TO-220	1.29	200 .99	
LM2941CT	ADJ/1A LDO*	TO-220	1.69	45 1.39	
UA785AD	ADJ/1A	16-pin DIP	1.99	25 1.45	
78L05	+5V/100mA	TO-92	.25	100 .19	
7805T	+5V/1A	TO-220	.35	50 .29	
7805K	+5V/1A	TO-3	1.65	100 1.35	
78M05C	+5V/500mA	TO-220	.49	50 .39	
7806T	+6V/1A	TO-220	.35	500 .29	
78M06C	+6V/500mA	TO-220	.49	100 .39	
7808T	+8V/1A	TO-220	.35	50 .29	
7808K	+8V/1A	TO-3	1.89	50 1.49	
78M08C	+8V/500mA	TO-220	.49	300 .39	
7809T	+9V/1A	TO-220	.49	50 .41	
7810T	+10V/1A	TO-220	.89	100 .69	
78L12	+12V/100mA	TO-92	.25	500 .19	
7812T	+12V/1A	TO-220	.35	50 .29	
7812K	+12V/1A	TO-3	1.65	50 1.35	
78M12C	+12V/500mA	TO-220	.49	50 .39	
78L15	+15V/100mA	TO-92	.25	300 .19	
7815T	+15V/1A	TO-220	.39	250 .29	
7815K	+15V/1A	TO-3	1.65	50 1.35	
78M15C	+15V/500mA	TO-220	.49	50 .39	
7818T	+18V/1A	TO-220	.35	150 .29	
7824T	+24V/1A	TO-220	.35	50 .29	
7824K	+24V/1A	TO-3	1.89	50 1.49	
78M24C	+24V/500mA	TO-220	.49	100 .39	
79L05	-5V/100mA	TO-92	.29	400 .24	
7905T	-5V/1A	TO-220	.35	50 .29	
7905K	-5V/1A	TO-3	1.99	50 1.59	
7906T	-6V/1A	TO-220	.59	50 .53	
7908T	-8V/1A	TO-220	.59	50 .53	
79L12	-12V/100mA	TO-92	.29	500 .24	
7912T	-12V/1A	TO-220	.35	50 .29	
79L15	-15V/100mA	TO-92	.29	500 .24	
7915T	-15V/1A	TO-220	.35	200 .29	
7915K	-15V/1A	TO-3	1.99	20 1.59	
7918T	-18V/1A	TO-220	.59	50 .53	
7924T	-24V/1A	TO-220	.59	50 .53	

7400 Series

The standard in digital logic features active pull-ups to drive low impedance sources. Typical power dissipation is 10mW/gate.



Part #	# Pins	Description	Each	Bulk	
				Qty	Price
7400	14	Quad 2-input NAND gate	.39	25	.33
7402	14	Quad 2-input NOR gate	.29	25	.22
7403	14	Quad 2-in NAND gate w/ O/C out	.29	25	.15
7404	14	Hex inverters	.39	25	.34
7405	14	Hex inverter with O/C output	.29	25	.19
7406	14	Hex inverter buffer/driver	.35	25	.31
7407	14	Hex buffer/driver with O/C output	.45	25	.39
7408	14	Quad 2-input AND gate	.39	25	.31
7409	14	Quad 2-in AND gate w/ O/C out	.65	25	.49
7410	14	Triple 3-input NAND gate	.25	25	.18
7411	14	Triple 3-input AND gate	.69	25	.55
7413	14	Dual 4-in NAND Schmitt triggers	.25	25	.18
7414	14	Hex inverter Schmitt triggers	.35	25	.26
7416	14	Hex inverter buffer/driver	.29	25	.22
7417	14	Hex buffer/driver	.35	25	.26
7420	14	Dual 4-input NAND gate	.35	25	.24
7423	16	Dual 4-input NOR gate with strobe	.89	25	.69
7425	14	Dual 4-input NOR gate with strobe	.49	25	.42
7426	14	Quad 2-in NAND gate w/ O/C out	.69	25	.59
7427	14	Triple 3-input NOR gate	.25	25	.18
7428	14	Quad 2-input NOR buffer	.69	25	.59
7430	14	8-input NAND gate	.25	25	.18
7432	14	Quad 2-input OR gate	.45	25	.39
7433	14	Quad 2-input NOR buffer	.89	25	.72

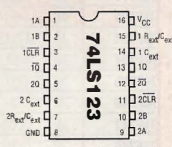
7400 Continued

Part #	# Pins	Description	Each	Bulk	
				Qty	Price
7437	14	Quad 2-input NAND buffer	.89	25	.81
7438	14	Quad 2-in NAND buffer O/C out	.25	25	.18
7440	14	Dual 4-input NAND buffer	.25	25	.15
7442	16	BCD-to-decimal decoder	.49	25	.41
7445	16	BCD-to-decimal decoder/driver	1.19	25	1.05
7446	16	BCD-to-7 segment decoder/driver	.99	25	.79
7447	16	BCD-to-7 segment decoder/driver	1.09	25	.85
7450	14	Dual 2-input AND-OR-INVERT gate	.59	25	.44
7451	14	Dual 2-input AND-OR-INVERT gate	.89	25	.69
7453	14	Exp. 2-input AND-OR-INVERT gate	.89	25	.69
7470	14	Gated edge-triggered JK flip-flop	.69	25	.55
7472	14	JK Pulse-triggered flip-flop	1.05	25	.79
7473	14	Dual JK flip-flop with clear	.99	25	.79
7474	14	Dual D-type flip-flop w/ pre & clr	.45	25	.36
7476	16	Dual JK flip-flop	.99	25	.75
7483	16	4-bit full adder	.89	20	.69
7485	16	4-bit magnitude comparator	.49	25	.41
7486	14	Quad 2-input XOR gate	.59	25	.48
7489	16	64-bit RAM, open collector output	2.89	24	2.55
7490	14	Decade counter	.89	25	.69
7491	14	8-bit shift register	1.29	25	.99
7493	14	4-bit binary ripple counter	.79	25	.66
7495	14	4-bit shift register	.69	25	.58
7497	16	6-bit binary rate multiplier	1.39	25	1.10
74107	14	Dual JK flip-flop	.29	25	.19
74109	16	Dual JK positive flip-flop	.99	25	.79
74116	24	Dual 4-bit with clear latch	.99	15	.79
74121	14	Monostable multivibrator	.99	25	.91
74123	16	Dual retriggerable MS multivibrator	1.15	25	.89
74125	14	Quad 3-state buffer	.89	25	.79
74126	14	Quad 3-state buffer	.75	25	.59
74128	14	Quad 2-input NOR buffer	.55	25	.46
74132	14	Quad 2-input NAND Schmitt trigger	.69	25	.55



74LS Series

Featuring better performance than standard 7400 series devices, the 74LS series also uses about 1/5th the power.



Part #	# Pins	Description	Each	Bulk	
				Qty	Price
74LS00	14	Quad 2-input NAND gate	.25	25	.18
74LS01	14	Quad 2-in NAND gate, O/C out	.39	25	.28
74LS02	14	Quad 2-input NOR gate	.25	25	.18
74LS03	14	Quad 2-in NAND gate, O/C out	.25	25	.18
74LS04	14	Hex inverters	.25	25	.18
74LS05	14	Hex inverter with O/C output	.25	25	.18
74LS06	14	Hex inverter buffer/driver	.39	25	.34
74LS07	14	Hex buffer/driver with O/C output	.84	25	.79
74LS08	14	Quad 2-input AND gate	.25	25	.18
74LS09	14	Quad 2-in AND gate with O/C out	.25	25	.18
74LS10	14	Triple 3-input NAND gate	.25	25	.18
74LS11	14	Triple 3-input AND gate	.25	25	.18
74LS12	14	Triple 3-in NAND gate, O/C out	.45	25	.34
74LS13	14	Dual 4-input NAND Schmitt trig	.25	25	.18
74LS14	14	Hex inverter Schmitt triggers	.25	25	.18
74LS15	14	Triple 3-input AND gate	.25	25	.18
74LS20	14	Dual 4-input NAND gate	.25	25	.18
74LS21	14	Dual 4-input AND gate	.25	25	.18
74LS27	14	Triple 3-input NOR gate	.25	25	.18
74LS28	14	Quad 2-input NOR buffer	.39	25	.29
74LS30	14	8-input NAND gate	.25	25	.18
74LS32	14	Quad 2-input OR gate	.25	25	.18
74LS33	14	Quad 2-input NOR buffer	.25	25	.18
74LS37	14	Quad 2-input NAND buffer	.25	25	.18
74LS38	14	Quad 2-in NAND buffer, O/C out	.25	25	.18
74LS40	14	Dual 4-input NAND buffer	.35	30	.26
74LS42	16	BCD-to-decimal decoders	.69	25	.58
74LS47	16	BCD-to-7 segment decoder/driver	.84	25	.75
74LS48	16	BCD-to-7 segment decoder	.84	25	.75
74LS51	14	Dual 2-input AND-OR-INVERT gate	.25	25	.18
74LS73	14	Dual JK flip-flop with clear	.35	25	.26
74LS74	14	Dual D-type flip-flop w/ pre & clr	.25	25	.18
74LS75	16	4-bit bistable latch	.49	25	.43
74LS76	16	Dual JK flip-flop	.55	25	.45
74LS77	14	4-bit D latch	1.09	25	.92
74LS78	14	Dual JK edge flip-flop	1.49	25	1.15
74LS83	16	4-bit full adder	.45	25	.39
74LS85	16	4-bit magnitude comparator	.35	25	.29
74LS86	14	Quad 2-input XOR gate	.29	25	.22
74LS90	14	Decade counter	.35	25	.31
74LS91	14	8-bit shift register	.65	25	.55
74LS92	14	Divide by 12 counter	.45	25	.36
74LS93	14	4-bit binary ripple counter	.49	25	.42
74LS95	14	4-bit shift register	.39	25	.31

74LS Continued

Part #	# Pins	Description	Each	Bulk	
				Qty	Price
74LS96	16	5-bit shift register	1.99	25	1.55
74LS107	14	Dual JK flip-flop	.25	25	.18
74LS109	16	Dual JK positive flip-flop	.25	25	.18
74LS112	16	Dual JK edge trigger flip-flop	.25	25	.18
74LS113	14	Dual JK edge trig flip-flop, preset	.89	25	.75
74LS122	14	Retriggerable mono multivibrator	.39	25	.31
74LS123	16	Dual retrigger mono multivibrator	.35	25	.27
74LS125	14	Quad 3-state buffer	.35	25	.27
74LS126	14	Quad 3-state buffer	.35	25	.27
74LS132	14	Quad 2-in NAND Schmitt trigger	.35	25	.27
74LS133	16	13 input NAND gate	.35	25	.27
74LS136	14	Quad 2-in XOR gate O/C output	.35	25	.27
74LS137	16	3-to-8 line decoder/demux	.99	25	.89
74LS138	16	1-of-8 decoder/demultiplexer	.29	25	.23
74LS139	16	Dual 2/4 line decoder/demux	.29	25	.23
74LS145	16	BCD-to-decimal decoder/driver	.49	25	.38
74LS147	16	10-to-4 priority encoder	.79	25	.67
74LS148	16	8-input priority encoder	.89	25	.73
74LS151	16	8-input multiplexer	.29	25	.22
74LS153	16	Dual 4-1 multiplexer	.29	25	.22
74LS154	24	4-to-16 decoder/demux	2.29	17	1.98
74LS155	16	Dual 2-4 decoder/demux	.29	25	.22
74LS156	16	Quad 2-4 decoder/demux O/C	.29	25	.22
74LS157	16	Quad 2-in select/mux non-invert	.29	25	.22
74LS158	16	Quad 2-1 mux inverting out	.29	25	.22
74LS160	16	BCD decade counter	.75	25	.59
74LS161	16	4-bit binary counter	.29	25	.22
74LS162	16	BCD decade counter	.99	25	.82
74LS163	16	4-bit binary counter	.29	25	.22
74LS164	14	8-bit ser-in, par-out shift reg	.39	25	.31
74LS165	16	8-bit ser/par-in, ser-out shift reg	.49	25	.41
74LS166	16	8-bit ser/par-in, ser-out shift reg	.35	25	.26
74LS168	16	4-bit up/down synch dec counter	.89	25	.69
74LS169	16	4-bit up/down synch bin counter	.65	25	.54
74LS170	16	4 x 4 register file	.45	25	.34
74LS173	16	Quad D flip-flop with 3-state out	.45	25	.34
74LS174	16	Hex D flip-flop	.29	25	.22
74LS175	16	Quad D flip-flop	.29	25	.22
74LS181	24	4-bit arithmetic logic unit	1.09	15	.99
74LS189	16	64-Bit RAM 3 state	4.99	22	4.25
74LS190	16	BCD/decade up/down counter	.69	25	.55
74LS191	16	4-bit binary up/down counter	.45	25	.34
74LS192	16	BCD decade up/down counter	.45	25	.34
74LS193	16	4-bit binary up/down counter	.45	25	.34
74LS194	16	4-bit bi-direct universal shift reg	.45	25	.34
74LS195	16	4-bit par-access shift register	.45	25	.34
74LS196	14	Decade ripple counter	.45	25	.34
74LS197	14	4-bit binary ripple counter	.45	25	.34
74LS221	16	Dual MS multivibrator	.45	25	.34
74LS240	20	Octal inverter buffer 3-state	.35	18	.26

7400 Continued

Part #	# Pins	Description	Each	Bulk	
				Qty	Price
74143	24	4-bit 7-segment counter/latch	1.99	15	1.55
74145	16	BCD-to-decimal decoder/driver	.79	25	.59
74148	16	8-input priority encoder	.99	25	.82
74150	24	16-input multiplexer	1.69	15	1.35
74151	16	8-input multiplexer	.29	25	.23
74153	16	Dual 4-1 multiplexer	.29	25	.23
74154	24	4-to-16 decoder/demux	2.19	15	1.69
74155	16	Dual 2-4 decoder/demux	.39	25	.26
74157	16	Quad 2-in select/mux non-invert	.35	25	.26
74159	24	1-of-16 decoder/demux O/C output	1.59	15	1.35
74161	16	4-bit binary counter	.39	25	.26
74162	16	BCD decade counter	1.49	25	1.25
74163	16	4-bit binary counter	.49	25	.39
74164	14	8-bit ser-in, par-out shift reg	.49	25	.39
74170	16	4 x 4 register file	1.99	25	1.55
74173	16	Quad D flip-flop with 3-state out	.99	25	.87
74174	16	Hex D flip-flop	.59	25	.48
74175	16	Quad D flip-flop	.59	25	.48
74176	14	35MHz decade/binary counter	2.49	25	1.99
74177	14	35MHz decade/binary counter	2.49	25	1.99
74180	14	8-bit odd/even parity generator	.79	25	.69
74191	16	4-bit binary up/down counter	1.19	25	.99
74193	16	4-bit binary up/down counter	1.49	25	1.15
74194	16	4-bit bi-direct universal shift reg	1.49	25	1.15
74221	16	Dual monostable multivibrator	.35	25	.26
74247	16	BCD-to-7 segment decoder/driver	2.99	25	2.35
74259	16	8-bit addressable latch	.69	25	.52
74279	16	Quad set-reset latch	.49	25	.39
74283	16	4-bit full adder	2.99	25	2.45
74284	16	4 x 4 par binary multiplier	2.99	25	2.35
74298	16	Quad 2-port register	.49	25	.36
74367	16	Hex buffer/driver 3-state	.29	25	.22
74393	14	Dual 4-bit binary ripple counter	.79	25	.64

74LS Continued

74LS Continued				Bulk	
Part #	# Pins	Description	Each	Qty	Price
74LS241	20	Octal buffer 3-state	.35	18	.26
74LS243	14	Quad transceiver 3-state	.35	25	.26
74LS244	20	Octal buffer 3-state	.29	18	.24
74LS245	20	Octal transceiver 3-state	.29	18	.24
74LS247	16	BCD-to-7 segment decoder/driver	.79	25	.65
74LS251	16	8-input multiplexer 3-state	.39	25	.31
74LS253	16	Dual 4-input mux 3-state	.39	25	.31
74LS257	16	Quad 2-input mux 3-state	.29	25	.22
74LS258	16	Quad 2/1 mux 3-state	.39	20	.31
74LS259	16	8-bit addressable latch	.39	25	.31
74LS260	14	Dual 5-input NOR gate	.35	25	.26
74LS266	14	Quad 2 in XNOR gate O/C out	.35	25	.26
74LS273	20	Octal D flip-flop	.39	18	.34
74LS279	16	Quad set-reset latch	.29	25	.22
74LS280	14	9-bit odd/even parity generator	.29	25	.22
74LS283	16	4-bit full adder	.49	25	.39
74LS293	14	4-bit binary ripple counter	.45	25	.36
74LS298	16	Quad 2-port register	.89	25	.69
74LS299	20	8-bit universal shift register	1.25	18	.99
74LS348	16	8-to-3 priority register	.99	25	.75
74LS353	16	Dual 4-bit mux inverting-out	.69	25	.55
74LS365	16	Hex buffer/driver 3-state	.35	25	.27
74LS366	16	Hex inverter buffer 3-state	.69	25	.56
74LS367	16	Hex buffer/driver 3-state	.29	25	.22
74LS368	16	Hex inverter/buffer 3-state	.29	25	.22
74LS373	20	Octal transparent latch	.35	18	.31
74LS374	20	Octal D flip-flop 3-state	.35	18	.31
74LS377	20	Octal D flip-flop with clock enable	.45	20	.36
74LS378	16	Hex D flip-flop with clock enable	.89	25	.72
74LS379	16	Quad D flip-flop with clock enable	.89	25	.72
74LS386	14	Quad 2-input XOR gate	.89	25	.72
74LS390	16	Dual decade ripple counter	.39	25	.31
74LS393	14	Dual 4-bit binary ripple counter	.45	30	.37
74LS396	16	Octal storage register	1.49	25	1.25
74LS540	20	Octal inverter-buffer 3-state	.49	18	.39
74LS541	20	Octal non-inverting buffer	.69	18	.55
74LS573	20	Octal D-type latch	2.09	18	1.83
74LS574	20	Octal D-type flip-flop	2.09	18	1.83
74LS590	16	8-bit binary counter 3-state	3.25	25	2.99
74LS624	14	Voltage controlled oscillator	1.99	25	1.55
74LS629	16	Dual volt control oscillator	1.19	25	.99
74LS640	20	Octal bus transceiver 3-state	.59	20	.46
74LS645	20	Octal bus transceiver 3-state	.59	20	.46
74LS646	24	Octal trans./reg. 3-state (3" wide)	1.49	15	1.25
74LS670	16	4 x 4 register file 3-state	.35	25	.29
74LS682	20	8-bit comparator	2.49	20	1.99
74LS684	20	8-bit comparator	2.49	20	1.99
74LS688	20	8-bit comparator (AM25LS2521)	.99	18	.89
81LS97	20	3-state hex buffer	1.99	18	1.55

74ALS Series

Advanced low power Schottky devices use less than 50% of the power of 74LS devices with twice the performance.

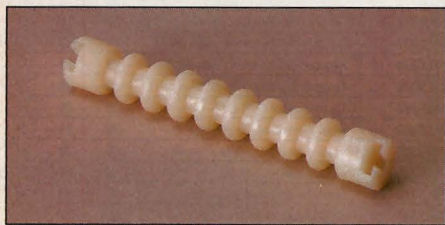


Part #	# Pins	Description	Bulk	
			Each	Qty Price
74ALS00	14	Quad 2-input NANO gate	.25	25 .18
74ALS02	14	Quad 2-input NOR gate	.25	25 .18
74ALS04	14	Hex inverter	.25	25 .18
74ALS05	14	Hex inverter O/C output	.25	25 .18
74ALS08	14	Quad 2-input AND gate	.25	25 .18
74ALS10	14	Triple 3-input NANO gate	.25	25 .18
74ALS11	14	Triple 3-input AND gate	.25	25 .18
74ALS14	14	Hex Schmitt trigger	1.49	25 1.19
74ALS20	14	Dual 4-input NANO gate	.35	25 .26
74ALS21	14	Dual 4-input AND gate	.35	25 .26
74ALS27	14	Triple 3-input NOR gate	.29	25 .22
74ALS32	14	Quad 2-input OR gate	.25	25 .18
74ALS74	14	Dual D-type flip-flop	.29	25 .22
74ALS86	14	Quad 2-input exclusive OR gate	.35	25 .29
74ALS112	16	Dual JK edge triggered flip-flop	.59	25 .49
74ALS138	16	1-of-8 decoder/demultiplexer	.45	25 .36
74ALS139	16	Dual 2/4 decoder/demultiplexer	.45	25 .36
74ALS151	16	8-input multiplexer	.59	25 .49
74ALS153	16	Dual 4-1 multiplexer	.59	25 .49
74ALS157	16	Quad 2-input multiplexer	.59	25 .49
74ALS158	16	Quad 2-in multiplexer invert out	.69	25 .52
74ALS161	16	4-bit binary counter	.59	25 .45
74ALS163	16	4-bit binary counter	.59	25 .45
74ALS165	16	8-bit shift register	.99	25 .89
74ALS174	16	Hex D flip-flop	.59	25 .49
74ALS175	16	Quad D flip-flop	.59	25 .49
74ALS191	16	Up/down binary counter	1.49	25 1.15
74ALS193	16	Up/down binary counter	1.49	25 1.15
74ALS240	20	Octal inverter buffer 3-state	.49	18 .39
74ALS244	20	Octal buffer 3-state	.49	20 .39
74ALS245	20	Octal transceiver 3-state	.49	18 .39
74ALS273	20	Octal D flip-flop	.69	20 .55
74ALS299	20	8-bit universal shift register	1.99	20 1.55
74ALS373	20	Octal transparent latch	.59	18 .45
74ALS374	20	Octal D flip-flop 3-state	.59	20 .45
74ALS540	20	Octal inverter/buffer 3-state	1.09	18 .92
74ALS541	20	Octal non-inverting buffer	1.09	20 .92
74ALS573	20	Octal D-type latch	.75	20 .59
74ALS574	20	Octal D-type flip-flop	.99	19 .79
74ALS646	24	Octal trans/reg 3-state (.3" wide)	4.49	15 1.99
74ALS688	20	8-bit comparator	2.99	20 2.25
74ALS874	24	Dual 4-bit register	2.29	15 1.75



IC Tube Pin Puller

If you've gone through the frustration of removing those stubborn pins from IC tubes, here's an easy solution! This handy plastic tool has grooves on either end. Just slip it under the pin and extract it with a simple flick of the wrist.

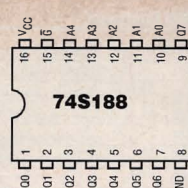


PIN-PULLER 1 lb\$2.99



74S Series

Faster than standard 7400 series, the 74S series features typical propagation delay times of 6ns and 20mW per gate power consumption.



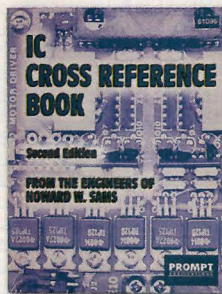
Part #	# Pins	Description	Bulk	
			Each	Qty Price
74S00	14	Quad 2-input NANO gate	.25	25 .18
74S02	14	Quad 2-input NOR gate	.25	25 .18
74S04	14	Hex inverters	.25	25 .18
74S08	14	Quad 2-input AND gate	.25	25 .18
74S10	14	Triple 3-input NANO gate	.25	25 .18
74S11	14	Triple 3-input AND gate	.25	25 .18
74S30	14	8-input NANO gate	.59	25 .45
74S32	14	Quad 2-input OR gate	.29	25 .22
74S37	14	Quad 2-input NANO buffer	1.49	25 1.25
74S38	14	Quad 2-in NANO buffer O/C out	1.49	25 1.25
74S51	14	Dual 2-input AND-OR-INVERT gate	.49	25 .41
74S74	14	Dual D type flip-flop w/ pre & clr	.35	25 .26
74S85	16	4-bit magnitude comparator	1.99	25 1.59
74S86	14	Quad 2-input XOR gate	.75	25 .63
74S113	14	Dual JK edge-trig flip-flop, w/ pre	1.69	25 1.35
74S133	16	13-input NANO gate	.59	25 .49
74S134	16	12-input NANO gate 3-state	.89	25 .74
74S135	16	Quad XOR/NOR gate	.89	25 .74
74S138	16	1-of-8 decoder/demultiplexer	.69	25 .58
74S139	16	Dual 2/4-line decoder/demux	.85	25 .65
74S140	14	Dual 4-input NANO 50 ohm drive	.89	25 .75
74S151	16	8-input multiplexer	.79	25 .66
74S153	16	Dual 4-1 multiplexer	.79	25 .66
74S158	16	Quad 2-1 mux inverting output	.79	25 .66
74S163	16	4-bit binary counter	2.29	25 1.75
74S174	16	Hex D flip-flop	.55	25 .42
74S175	16	Quad D flip-flop	.55	25 .42
74S182	16	Lookahead carry generator	2.29	25 1.75
74S188	16	256-bit PROM, NSC	3.19	25 2.55
74S189	16	16 x 4 static RAM	2.69	25 2.15
74S194	16	4-bit bi-direct universal shift reg	1.79	25 1.52
74S195	16	4-bit par-access shift register	1.79	25 1.52
74S240	20	Octal inverter buffer 3-state	1.79	20 1.52
74S241	20	Octal buffer 3-state non-inverting	.59	18 .46
74S244	20	Octal buffer 3-state	1.69	18 1.35
74S251	16	8-input multiplexer 3-state	1.69	25 1.35
74S253	16	Dual 4-input mux 3-state	.85	25 .69
74S257	16	Quad 2-input mux 3-state	.85	25 .69
74S260	14	Dual 5-input NOR gate	1.49	25 1.15
74S273	20	Octal D flip-flop	2.99	18 2.35
74S280	14	9-bit odd/even parity generator	1.39	25 1.10
74S288	16	256-bit PROM, NSC	2.69	25 2.25
74S289	16	64-bit RAM open collector output	2.99	25 2.39
74S373	20	Octal transparent latch	.69	20 .55
74S374	20	Octal D flip-flop 3-state	.69	18 .55
74S399	16	Quad 2-port register	.99	25 .79
74S472	20	512 x 8 PROM 3-state, NSC	5.99	18 4.99
74S474	24	512 x 8 PROM 3-state, NSC	6.99	15 5.55
74S571	16	512 x 4 PROM 3-state, NSC	3.99	25 3.25



IC Cross Reference Book, 2nd Edition

Do you need to replace a hard-to-find part? Here is a complete guide to IC replacements and substitutions. This easy-to-use reference is the most comprehensive guide available for engineers, technicians, and anyone who works with ICs.

SAMS-1096-5 168 pages, 1 lb\$19.99



www.jdr.com

74F Series

Up to 30% faster than Schottky, these devices generally use about 75% less power. Pin & function compatible with 74LS devices.

Part #	# Pins	Description	Bulk	
			Each	Qty Price
74F00	14	Quad 2-input NANO gate	.19	25 .14
74F02	14	Quad 2-input NOR gate	.19	25 .14
74F04	14	Hex inverters	.25	25 .18
74F08	14	Quad 2-input AND gate	.25	25 .18
74F10	14	Triple 3-input NANO gate	.19	25 .14
74F11	14	Triple 3-input AND gate	.19	25 .14
74F14	14	Hex inverter Schmitt triggers	.59	25 .43
74F20	14	Dual 4-input NANO gate	.25	25 .18
74F32	14	Quad 2-input OR gate	.25	25 .18
74F38	14	Quad 2-input NANO buffer O/C out	.59	25 .42
74F64	14	4-2-3-2-in AND-OR-INVERT gate	.25	25 .18
74F74	14	Dual D-type flip-flop w/ pre & clr	.19	25 .14
74F85	16	4-bit magnitude comparator	1.99	25 1.55
74F86	14	Quad 2-input XOR gate	.19	25 .14
74F109	16	Dual JK positive flip-flop	.49	25 .36
74F125	14	Quad buffer 3-state	.49	25 .36
74F138	16	1-of-8 decoder/demultiplexer	.39	25 .34
74F139	16	Dual 2/4 line decoder/demux	.39	25 .34
74F148	16	8-input priority encoder	.79	25 .65
74F151	16	8-input multiplexer	.45	25 .34
74F153	16	Dual 4-1 multiplexer	.45	25 .34
74F157	16	Quad 2-in select/mux non-invert	.49	25 .39
74F158	16	Quad 2-1 multiplexer inverting out	.49	25 .39
74F161	16	4-bit binary counter	.59	25 .48
74F163	16	4-bit binary counter	.59	25 .48
74F164	14	8-bit ser-in, par-out shift reg	1.19	25 .99
74F169	16	4-bit up/down synch bin counter	1.99	25 1.55
74F174	16	Hex D flip-flop	.59	25 .42
74F175	16	Quad D flip-flop	.45	25 .36
74F191	16	4-bit binary up/down counter	1.89	25 1.49
74F193	16	4-bit binary up/down counter	3.29	25 2.65
74F194	16	4-bit bi-direct universal shift reg	1.39	25 1.10
74F195	16	4-bit parallel-access shift register	1.39	25 1.10
74F240	20	Octal inverter buffer 3-state	.55	18 .44
74F241	20	Octal buffer 3-state	.65	19 .53
74F244	20	Octal buffer 3-state	.39	18 .31
74F245	20	Octal transceiver 3-state	.39	18 .31
74F251	16	8-input multiplexer 3-state	.49	25 .41
74F253	16	Dual 4-input mux 3-state	.69	25 .56
74F257	16	Quad 2-input mux 3-state	.45	25 .36
74F258	16	Quad 2-1 multiplexer 3-state	.45	25 .36
74F280	14	9-bit odd/even parity generator	.45	25 .36
74F283	16	4-bit full adder	.79	25 .65
74F299	20	8-bit universal shift register	3.69	19 2.99
74F373	20	Octal transparent latch	.49	18 .39
74F374	20	Octal D flip-flop 3-state	.49	18 .39
74F381	20	ALU/function generator	2.89	20 2.29
74F521	20	Octal comparator	.79	18 .65
74F573	20	Octal D-type latch	.79	18 .68
74F574	20	Octal D-type flip-flop	.79	18 .68
74F623	20	Octal bus trans. 3-state non-inv.	1.29	18 1.08
74F646	24	Octal trans/reg. 3-state (.3" wide)	3.69	15 2.99



Fast and LS TTL Data

This comprehensive data book from Motorola features pinouts and applications data for most 74F and 74LS series TTL integrated circuits.

- Circuit characteristics, design considerations, symbol definitions and
- AC/DC test circuits are also covered
- Applications and pinout data on the most popular form of digital circuitry for 74F Fast series and 74LS Low-Power Schottky series devices
- Packaging information for both DIP and surface mount versions
- Ideal logic reference for engineers, students and electronic enthusiasts



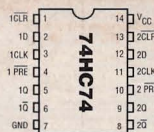
MOTOROLA

MOT121 330 pages, 2 lbs\$7.99



74HC Series

Featuring low power CMOS technology and high noise immunity, these devices are ideal substitutes for CMOS conversion.



Part #	# Pins	Description	Bulk	
			Each	Qty Price
74HC00	14	Quad 2-input NAND gate	.21	25 .15
74HC02	14	Quad 2-input NOR gate	.21	25 .15
74HC03	14	Quad 2-input NAND gate	.26	25 .19
74HC04	14	Hex inverters	.21	25 .15
74HC04	14	Hex inverters, unbuffered	.29	25 .24
74HC05	14	Hex inverters with O/C output	.29	25 .24
74HC08	14	Quad 2-input AND gate	.21	25 .15
74HC10	14	Triple 3-input NAND gate	.21	25 .15
74HC11	14	Triple 3-input AND gate	.21	25 .15
74HC14	14	Hex inverter Schmitt triggers	.26	25 .21
74HC20	14	Dual 4-input NAND gate	.21	25 .15
74HC21	14	Dual 4-input AND gate	.49	25 .40
74HC27	14	Triple 3-input NOR gate	.39	25 .31
74HC30	14	8-input NAND gate	.21	25 .15
74HC32	14	Quad 2-input OR gate	.21	25 .15
74HC32	14	Quad 2-input OR gate	.21	25 .15
74HC42	16	BCD-to-decimal decoder	.59	25 .46
74HC51	14	Dual 2-input AND-OR-INVERT gate	.35	25 .28
74HC73	14	Dual JK flip-flop with clear	.49	25 .41
74HC74	14	Dual D-type flip-flop w/ pre & clr	.29	25 .22
74HC75	16	Dual 2-bit bistable latch	.35	25 .26
74HC76	16	Dual JK flip-flop	.59	25 .45
74HC85	16	4-bit magnitude comparator	.59	25 .47
74HC86	14	Quad 2-input XOR gate	.35	25 .27
74HC93	14	4-bit binary ripple counter	1.29	25 .99
74HC107	14	Dual JK flip-flop	.69	25 .56
74HC109	16	Dual JK positive flip-flop	.69	25 .56
74HC112	16	Dual JK edge-trigger flip-flop	.29	25 .23
74HC123	16	Dual retrigger mono multivibrator	.35	25 .29
74HC125	14	Quad 3-state buffer	.25	25 .19
74HC132	14	Quad 2-input NAND Schmitt trigger	.35	25 .29
74HC133	16	13-input NAND gate	.49	25 .41
74HC137	16	3-to-8 line decoder/demultiplexer	.69	25 .58
74HC138	16	1-of-8 decoder/demultiplexer	.33	25 .26
74HC139	16	Dual 2/4 line decoder/demux	.33	25 .26
74HC147	16	10-to-4 priority encoder	1.09	25 .92
74HC148	16	8-input priority encoder	1.09	25 .92
74HC151	16	8-input multiplexer	.49	25 .38
74HC153	16	Dual 4-1 multiplexer	.35	25 .29
74HC154	24	1-of-16 decoder/demux .3" wide	1.29	15 .99
74HC157	16	Quad 2-in select/mux non-invert	.35	25 .29
74HC158	16	Quad 2-1 mux inverting out	.49	25 .41
74HC161	16	4-bit binary counter	.36	25 .31
74HC163	16	4-bit binary counter	.35	25 .27
74HC164	14	8-bit ser-in, par-out shift reg	.37	25 .31
74HC165	16	8-bit ser/par-in, ser-out shift reg	.35	25 .29
74HC166	16	8-bit ser/par-in, ser-out shift reg	.79	25 .66
74HC174	16	Hex D flip-flop	.35	25 .25
74HC175	16	Quad D flip-flop	.35	25 .25
74HC181	24	4-bit ALU	2.89	15 2.31
74HC191	16	4-bit binary up/down counter	.59	25 .48
74HC192	16	BCD decade up/down counter	.59	25 .48
74HC193	16	4-bit binary up/down counter	.59	25 .48
74HC194	16	4-bit bi-direct universal shift reg	.99	25 .79
74HC195	16	4-bit parallel-access shift register	.59	25 .48
74HC221	16	Dual monostable multivibrator	.59	25 .51
74HC238	16	3-8 decoder/demux	.99	25 .79
74HC240	20	Octal inverting buffer 3-state	.45	18 .35
74HC241	20	Octal buffer 3-state	.89	18 .69
74HC243	14	Quad transceiver 3-state	.89	25 .69
74HC244	20	Octal buffer 3-state	.39	18 .31
74HC245	20	Octal transceiver 3-state	.39	18 .31
74HC251	16	8-input multiplexer 3-state	.69	25 .57
74HC253	16	Dual 4-input mux 3-state	.69	25 .57
74HC257	16	Quad 2-input mux 3-state	.49	25 .41
74HC259	16	8-bit addressable latch	.45	25 .35
74HC273	20	Octal D flip-flop	.69	18 .57
74HC299	20	8-bit universal shift register	.79	20 .59
74HC365	16	Hex buffer/driver 3-state	.79	25 .59
74HC367	16	Hex buffer/driver 3-state	.79	25 .59
74HC368	16	Hex inverter/buffer 3-state	.79	25 .59
74HC373	20	Octal transparent latch	.45	20 .39
74HC374	20	Octal D flip-flop 3-state	.45	18 .39
74HC377	20	Octal D flip-flop with clock enable	.69	18 .56
74HC390	16	Dual decade ripple counter	.89	25 .81
74HC393	14	Dual 4-bit binary ripple counter	.59	18 .48
74HC540	20	Octal inverter/buffer 3-state	.99	20 .79
74HC541	20	Octal non-inverting buffer	.79	18 .59
74HC573	20	Octal D-type latch	.79	18 .59
74HC574	20	Octal D-type flip-flop	.79	20 .59

74HC Continued

Part #	# Pins	Description	Bulk	
			Each	Qty Price
74HC590	16	8-bit binary counter 3-state	.99	25 .79
74HC595	16	8-bit serial to parallel shift register	.99	25 .79
74HC640	20	Octal bus transceiver 3-state	.99	20 .79
74HC688	20	8-bit magnitude comparator	.99	18 .79
74HC4017	16	Decade counter/divider	.69	25 .58
74HC4024	14	7-stage ripple carry counter	.59	25 .49
74HC4040	16	12-stage ripple carry counter	.69	25 .58
74HC4046	16	Phase lock loop	1.29	25 .99
74HC4049	16	Hex inverting buffer	.69	25 .58
74HC4050	16	Hex non-inverting buffer	.59	25 .45
74HC4051	16	8-channel analog mux/demux	.89	25 .69
74HC4060	16	14-stage ripple carry counter	.65	25 .49
74HC4066	14	Quad analog switch	.59	25 .47
74HC4351	20	Analog multiplexer with latch	1.59	18 1.32
74HC4538	16	Dual monostable multivibrator	.59	25 .45

74ACT Series

Supporting a wide power supply range, these devices feature high current latch-up immunity. Typical power consumption is 0.1mW/gate.



Part #	# Pins	Description	Bulk	
			Each	Qty Price
74ACT00	14	Quad 2-input NAND gate	.29	25 .23
74ACT02	14	Quad 2-input NOR gate	.29	25 .23
74ACT04	14	Hex inverter	.29	25 .23
74ACT08	14	Quad 2-input AND gate	.29	25 .23
74ACT10	14	Triple 3-input NAND gate	.59	25 .47
74ACT32	14	Quad 2-input OR gate	.29	25 .23
74ACT74	14	Dual D-type flip-flop w/pre & clr	.49	25 .41
74ACT86	14	Quad 2-input XOR gate	.69	25 .56
74ACT109	16	Quad JK positive flip-flop	.69	25 .56
74ACT112	16	Quad JK edge-trigger flip-flop	.89	25 .81
74ACT125	14	Quad buffer 3-state	.99	25 .91
74ACT138	16	1-of-8 decoder/demultiplexer	.79	25 .72
74ACT139	16	Dual 2/4 line decoder/demux	.69	25 .58
74ACT151	16	8-input multiplexer	.69	28 .58
74ACT153	16	Dual 4/1 demultiplexer	.69	25 .58
74ACT157	16	Quad 2-in select/mux non-invert	.69	25 .58
74ACT161	16	4-bit binary counter	.89	25 .81
74ACT163	16	4-bit binary counter	.89	25 .81
74ACT174	16	Hex D flip-flop	.69	25 .55
74ACT175	16	Quad D flip-flop	.69	25 .55
74ACT191	16	4-bit binary up/down counter	1.49	25 1.21
74ACT240	20	Octal inverter/buffer 3-state	.59	19 .52
74ACT244	20	Octal buffer 3-state	.59	18 .52
74ACT245	20	Octal transceiver 3-state	.59	18 .52
74ACT251	16	8-input multiplexer 3-state	.69	25 .55
74ACT253	16	Dual 4-in multiplexer 3-state	.69	25 .55
74ACT257	16	Quad 4-in multiplexer 3-state	.69	25 .55
74ACT283	16	4-bit full adder	1.39	25 1.10
74ACT299	20	8-bit universal shift register	1.99	18 1.59
74ACT373	20	Octal transparent latch	.69	19 .61
74ACT374	20	Octal D-type flip-flop 3-state	.69	19 .61
74ACT573	20	Octal D-type latch	.65	18 .52
74ACT574	20	Octal D-type flip-flop	.65	18 .52
74ACT11244	24	Octal buffer/driver 3-state .3"	1.19	15 1.03

Motorola CMOS Logic Data Book

Presents technical data for Motorola's broad line of metal-gate CMOS logic ICs. This book has data sheets, product selector guide and handling and design guidelines. Includes data on all the logic circuits from the MC14000 series.

- MOT131 563 pages, 1991, 2 lbs\$7.99
- MOT129 804 pages, 1996, 2 lbs\$7.99
- Motorola's book on HSCMOS Series Devices
- MOT138 460 pages, 1993, 2 lbs\$6.99
- Motorola's book on 74AC/74ACT Series Devices

74HCT Series

A subgroup of the fast CMOS family, these devices translate TTL inputs. Each device is pin & function compatible with LS devices. 20pF per gate.



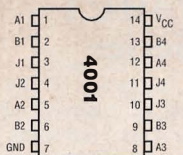
Part #	# Pins	Description	Bulk	
			Each	Qty Price
74HCT00	14	Quad 2-input NAND gate	.25	25 .18
74HCT02	14	Quad 2-input NOR gate	.25	25 .18
74HCT04	14	Hex inverters	.25	25 .18
74HCT08	14	Quad 2-input AND gate	.25	25 .18
74HCT10	14	Triple 3-input NAND gate	.25	25 .18
74HCT11	14	Triple 3-input AND gate	.25	25 .18
74HCT14	14	Hex inverter Schmitt trigger	.39	25 .31
74HCT20	14	Dual 4-input NAND gate	.25	25 .18
74HCT27	14	Triple 3-input NOR gate	.25	25 .18
74HCT30	14	8-input NAND gate	.25	25 .18
74HCT32	14	Quad 2-input OR gate	.25	25 .18
74HCT74	14	Dual D flip-flop w/ pre & clr	.35	25 .24
74HCT75	16	Dual 2-bit bistable latch	.35	25 .27
74HCT85	16	4-bit magnitude comparator	.99	25 .79
74HCT86	14	Quad 2-input XOR gate	.35	25 .24
74HCT93	14	4-bit binary ripple counter	.75	25 .59
74HCT123	16	Dual retrigger mono multivibrator	.55	25 .43
74HCT125	14	Quad buffer 3-state	.55	25 .43
74HCT138	16	1-of-8 decoder/demux	.29	25 .23
74HCT139	16	Dual 2/4 line decoder/demux	.29	25 .23
74HCT151	16	8-input multiplexer	.49	25 .39
74HCT154	24	1-of-16 decoder/demux	1.59	15 1.35
74HCT157	16	Quad 2-in select/mux non-invert	.49	25 .36
74HCT158	16	Quad 2-1 mux inverting out	.49	25 .36
74HCT161	16	4-bit binary counter	.55	25 .41
74HCT164	14	8-bit ser-in, par-out shift reg	.55	25 .41
74HCT166	16	8-bit shift register	.59	25 .46
74HCT174	16	Hex D flip-flop	.49	25 .35
74HCT175	16	Quad D flip-flop	.49	25 .35
74HCT191	16	4-bit binary up/down counter	.79	25 .65
74HCT193	16	4-bit binary up/down counter	.69	25 .55
74HCT194	16	4-bit bi-direct universal shift reg	.69	25 .55
74HCT195	16	4-bit par-access shift register	.69	25 .55
74HCT240	20	Octal inverter/buffer 3-state	.55	18 .46
74HCT241	20	Octal buffer 3-state	.55	18 .46
74HCT243	14	Quad transceiver 3-state	.55	25 .46
74HCT244	20	Octal buffer 3-state	.49	20 .39
74HCT245	20	Octal transceiver 3-state	.49	18 .39
74HCT257	16	Quad 2-input mux 3-state	.49	25 .39
74HCT259	16	8-bit addressable latch	.69	25 .55
74HCT273	20	Octal D flip-flop	.49	18 .41
74HCT299	20	8-bit universal shift register	1.09	18 .85
74HCT367	16	Hex buffer/driver 3-state	.59	25 .49
74HCT373	20	Octal transparent latch	.49	18 .39
74HCT374	20	Octal D flip-flop 3-state	.49	20 .39
74HCT377	20	Octal D flip-flop w/ clock enable	.89	18 .69
74HCT393	14	Dual 4-bit binary ripple counter	.69	25 .55
74HCT540	20	Octal inverter/buffer 3-state	.69	18 .55
74HCT541	20	Octal non-inverting buffer	.69	18 .55
74HCT573	20	Octal D-type latch	.79	20 .63
74HCT574	20	Octal D-type flip-flop	.79	18 .63
74HCT646	24	Octal transceiver/reg 3-state .3"W	1.49	15 1.31
74HCT688	20	8-bit magnitude comparator	1.49	18 1.19
74HCT4020	16	14-stage ripple carry counter	.89	25 .69
74HCT4040	16	12-stage ripple carry counter	.69	25 .55



Order Toll Free!
1-800-538-5000

4000 Series

With static power dissipation at about 10nW/gate, these low-power devices are well suited to battery-powered applications. Typical gate delays from 25ns to 50ns.



Part #	# Pins	Description	Bulk	
			Each	Qty Price
4000	14	Dual 3-input NOR gate/inverter	.25	25 .18
4001	14	Quad 2-input NOR buffered gate	.25	25 .18
4002	14	4-input NOR gate	.35	25 .24
4006	14	18-stage static shift register	.59	25 .48
4007	14	Dual comp pair/inverter	.25	25 .18
4008	16	4-bit full adder	.69	25 .57
4009	16	Hex buffer inverting	.39	25 .28
4010	16	Hex buffer non-inverting	.39	25 .28
4011	14	Quad 2-input NAND gate	.25	25 .18
4012	14	Dual 4-input NAND gate	.25	25 .18
4013	14	Dual D flip-flop with set-reset	.25	25 .18
4014	16	8-stage static shift register	.69	25 .56
4015	16	Dual 4-bit static shift register	.29	25 .22
4016	14	Quad bilateral switch	.29	25 .23
4017	16	Decade counter/divider	.34	25 .27
4018	16	Divide-by-N counter	.39	30 .33
4019	16	Quad AND-OR select gate	.29	25 .21
4020	16	14-stage binary/ripple counter	.45	25 .39
4021	16	8-stage static shift register	.35	25 .31
4022	16	Divide-by-8 counter	.69	25 .53
4023	14	Triple 3-input NAND gate	.23	25 .18
4024	14	7-stage binary/ripple counter	.39	25 .29
4025	14	Triple 3-input NOR gate	.25	25 .18

4000 Continued

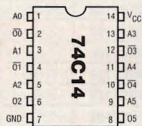
Part #	# Pins	Description	Bulk	
			Each	Qty Price
4026	16	Decade counter/divider	.99	25 .82
4027	16	Dual JK flip-flop	.25	25 .19
4028	16	BCD-to-decimal decoder	.29	25 .23
4029	16	Binary/decimal up/down counter	.49	22 .38
4030	14	Quad XOR gate	.39	25 .29
4034	24	8-bit 3-static shift register	2.49	15 1.99
4035	16	4-bit par-in/par-out shift reg	.45	30 .34
4040	16	12-stage binary/ripple counter	.39	25 .32
4041	14	Quad true/complement buffer	.99	25 .79
4042	16	Quad clocked D latch	.39	25 .29
4043	16	Quad 3-state NOR R/S latch	.35	25 .25
4044	16	Quad 3-state NANO R/S latch	.49	25 .39
4046	16	Micropower phase-locked loop	.59	25 .48
4047	14	Monostable/astable multivibrator	.59	25 .48
4049	16	Hex inverting buffer	.25	25 .19
4050	16	Hex non-inverting buffer	.25	25 .19
4051	16	Single 8-channel analog mux	.49	25 .39
4052	16	4-channel analog multiplexer	.49	25 .39
4053	16	Triple 2-channel analog mux	.49	25 .39
4056	16	BCD-to-7 seg LCD buffer/driver	.99	25 .79
4059	24	Program divide-by N counter	2.69	15 2.15
4060	16	14-stage binary/ripple counter	.49	25 .41
4066	14	Quad bilateral switch	.35	25 .26
4067	24	16-channel analog mux/demux	1.69	15 1.55
4068	14	8-input AND/NAND gate	.29	25 .22
4069	14	Hex inverter	.25	25 .18
4070	14	Quad 2-input XOR gate	.25	25 .18
4071	14	Quad 2-input OR buffered gate	.25	25 .18
4072	14	Dual 4-input OR gate	.39	25 .29
4073	14	Triple 3-input AND gate	.25	25 .18
4075	14	Triple 3-input OR gate	.35	25 .23
4076	16	3-state quad D flip-flop	.49	25 .38
4077	14	Quad exclusive NOR gate	.29	25 .22

4000 Continued

Part #	# Pins	Description	Bulk	
			Each	Qty Price
4078	14	8-input NOR/OR gate	.25	25 .19
4081	14	Quad 2-input AND gate	.25	25 .19
4082	14	Dual 4-input AND gate	.39	25 .25
4086	14	2-input AND/OR invert gate	.49	25 .39
4093	14	Quad 2-in NANO Schmitt trigger	.29	25 .24
4094	16	8-bit shift register with storage	.49	25 .39
4098	16	Dual monostable multivibrator	.49	25 .39
4099	16	8-bit addressable latch	.59	25 .45
4502	16	Strobed hex inverter/buffer	.79	25 .58
4503	16	Hex buffer	.45	25 .35
4508	24	Dual 4-bit latch	1.99	17 1.59
4510	16	Presetable up/down counter	.69	25 .55
4511	16	BCD-to-7 segment latch/decoder	.69	25 .55
4512	16	8-channel data selector	.55	25 .45
4514	24	4-bit latch/4-16 decoder	.89	15 .75
4515	24	4-bit latch/4-16 decoder	1.15	15 .89
4516	16	Presetable up/down counter	.55	25 .45
4518	16	Dual BCD up counter	.55	25 .45
4520	16	Dual up binary up counter	.45	25 .38
4522	16	Divide-by 2 bit counter	1.19	25 .99
4527	16	BCD rate multiplier	.89	25 .67
4528	16	Dual monostable multivibrator	.69	25 .55
4529	16	Dual 4-channel analog mux	1.29	22 .95
4532	16	Dual 8-bit priority encoder	.99	25 .79
4538	16	Dual monostable multivibrator	.49	25 .41
4541	14	Programmable timer	.49	25 .41
4543	14	BCD-to-7 segment decoder (LCD)	.69	25 .55
4553	16	3-digit BCD counter	3.29	25 2.75
4555	16	Dual 1-of-4 decoder	.49	25 .41
4556	16	Dual 1-of-4 decoder	.49	25 .41
4560	16	NBCD adder	.69	25 .45
4584	14	Hex Schmitt trigger (40106)	.45	25 .35
4585	16	4-bit comparator (F40085)	.59	25 .48
4702	16	Programmable bit rate generator	9.99	25 7.95

74C Series

These low power CMOS devices operate with a wide power supply range and offer good noise immunity. Capacitance 30pF per gate.



Part #	# Pins	Description	Bulk	
			Each	Qty Price
74C00	14	Quad 2-input NAND gate	.89	25 .78
74C02	14	Quad 2-input NOR gate	.79	25 .69
74C04	14	Hex inverters	.39	25 .33
74C08	14	Quad 2-input AND gate	.69	25 .59
74C14	14	Hex inverter Schmitt triggers	.39	25 .31
74C32	14	Quad 2-input OR gate	.79	25 .59
74C73	14	Dual JK flip-flop	1.39	25 1.18
74C74	14	Dual D-type flip-flop w/ pre & clr	.99	25 .79
74C90	14	Decade counter	1.39	25 1.10
74C151	16	8-input multiplexer	2.29	20 1.79
74C154	24	1-of-16 decoder/demux	5.39	15 4.29
74C157	16	Quad 2-in select/mux non-invert	3.19	25 2.55
74C161	16	4-bit binary counter	.65	25 .55
74C164	14	8-bit ser-in, par-out shift reg	2.49	25 1.99
74C174	16	Hex D flip-flop	.55	25 .45
74C175	16	Quad D flip-flop	.55	25 .45
74C193	16	4-bit binary up/down counter	1.19	25 .99
74C221	16	Dual monostable multivibrator	3.99	25 3.19
74C244	20	Octal buffer 3-state	2.19	18 1.75
74C373	20	Octal transparent latch	1.69	18 1.49
74C374	20	Octal D flip-flop 3-state	2.69	18 2.15
74C902	14	Hex non-inverting TTL buffer	1.89	25 1.59
74C906	14	Hex open drain N-Channel buffer	1.55	25 1.29
74C907	14	Hex open drain P-Channel buffer	1.29	25 .99
74C914	14	Hex Schmitt trigger	2.29	25 1.85
74C921	22	1024-bit static SG CMOS RAM	5.99	20 4.75
74C922	18	16-key encoder	5.49	20 4.87
74C923	20	20-key encoder	5.49	18 4.75
74C925	16	4-digit count mux 7-segment	7.49	25 6.51
74C928	18	4-digit count mux 7-segment	11.99	20 8.99

Epson CMOS DIP Crystal Oscillators

Lower current consumption with output enable and standby functions. Pin compatible with metal can.

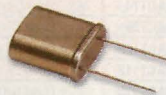
LOWER PRICES!

Part #	Frequency	Each	Qty Price
SG51KH50.0	50.0MHz	.79	25 .69
SG51YH66.5667	66.5667MHz	.49	25 .39

Note: Limited quantities, offer limited to supply on hand

Crystals

An accurate clock source for digital projects. Piezo-electric devices are ideal for applications requiring precise timing, such as frequency counters, timebases and computing equipment.



Part #	Frequency	Case	Bulk	
			Each	Qty Price
32.768KHZ	32.768 kHz	TF	.89	100 .69
1.0MHZ	1.0 MHz	HC-33	4.99	100 4.21
SM1.8432	1.8432 MHz	HC-49	1.95	100 1.35
1.8432MHZ	1.8432 MHz	HC-33	1.49	100 1.19
2.4576MHZ	2.4576 MHz	HC-49	.99	100 .89
3.579545MHZ	3.579545 MHz	HC-49	.99	100 .89
3.6864MHZ	3.6864 MHz	HC-49	.99	100 .89
4.0MHZ	4.0 MHz	HC-49	.99	100 .89
4.032MHZ	4.032 MHz	HC-49	.99	100 .89
4.9152MHZ	4.9152 MHz	HC-49	.99	100 .89
5.0MHZ	5.0 MHz	HC-49	.99	100 .89
5.0688MHZ	5.0688 MHz	HC-49	.99	100 .89
5.185MHZ	5.185 MHz	HC-49	.99	100 .89
6.0MHZ	6.0 MHz	HC-49	.99	100 .89
6.144MHZ	6.144 MHz	HC-49	.99	100 .89
6.5536MHZ	6.5536 MHz	HC-49	.99	100 .89
7.3728MHZ	7.3728 MHz	HC-49	.99	100 .89
8.0MHZ	8.0 MHz	HC-49	.99	100 .89
9.6MHZ	9.6 MHz	HC-49	.99	100 .89
10.0MHZ	10.0 MHz	HC-49	.99	100 .89
11.0592MHZ	11.0592 MHz	HC-49	.99	100 .89
12.0MHZ	12.0 MHz	HC-49	.99	100 .89
14.31818MHZ	14.31818 MHz	HC-49	.99	100 .89
15.0MHZ	15.0 MHz	HC-49	.99	100 .89
16.0MHZ	16.0 MHz	HC-49	.99	100 .89
17.430MHZ	17.430 MHz	HC-49	.99	100 .89
AT18.0	18.0 MHz	HC-25	.99	100 .89
18.0MHZ	18.0 MHz	HC-49	.99	100 .89
18.432MHZ	18.432 MHz	HC-49	.99	100 .89
20.0MHZ	20.0 MHz	HC-49	.99	100 .89
22.1184MHZ	22.1184 MHz	HC-49	.99	100 .89
24.0MHZ	24.0 MHz	HC-49	.99	100 .89
32.0MHZ	32.0 MHz	HC-49	.99	100 .89



Crystal Oscillators

Ideal for development work! Test circuits at various speeds by swapping the oscillator.



Part #	Frequency	Case	Bulk	
			Each	Qty Price
OSC1.0	1.0 MHz	OSC	3.95	25 3.15
OSC1.8432	1.8432 MHz	OSC	2.29	25 1.89
OSC2.0	2.0 MHz	OSC	2.29	25 1.89
OSC2.4576	2.4576 MHz	OSC	2.79	25 1.99
OSC3.6864	3.6864 MHz	OSC	2.59	25 2.12
OSC4.0	4.0 MHz	OSC	1.89	25 1.69
OSC5.0	5.0 MHz	OSC	1.89	25 1.30
OSC5.0688	5.0688 MHz	OSC	1.89	25 1.30
OSC6.0	6.0 MHz	OSC	1.89	25 1.30
OSC6.144	6.144 MHz	OSC	2.79	25 2.09
OSC8.0	8.0 MHz	OSC	1.39	25 1.11
OSC9.6	9.6 MHz	OSC	1.89	25 1.51
OSC10.0	10.0 MHz	OSC	1.39	25 1.11
OSC11.0592	11.0592 MHz	OSC	1.39	25 1.11
OSC12.0	12.0 MHz	OSC	1.39	25 1.11
OSC14.31818	14.31818 MHz	OSC	1.39	25 1.11
OSC15.0	15.0 MHz	OSC	1.39	25 1.11
OSC16.0	16.0 MHz	OSC	1.39	25 1.11
OSC16.257	16.257 MHz	OSC	1.89	25 1.30
OSC18.432	18.432 MHz	OSC	1.89	25 1.30
OSC20.0	20.0 MHz	OSC	1.39	25 1.11
OSC24.576	24.576 MHz	OSC	1.89	25 1.52
OSC24.0	24.0 MHz	OSC	1.39	25 1.11
OSC25.0	25.0 MHz	OSC	1.39	25 1.11
OSC30.0	30.0 MHz	OSC	1.89	25 1.30
OSC32.0	32.0 MHz	OSC	1.39	25 1.11
OSC33.0	33.0 MHz	OSC	1.89	25 1.51
OSC36.0	36.0 MHz	OSC	1.39	25 1.11
OSC40.0	40.0 MHz	OSC	1.39	25 1.11
OSC48.0	48.0 MHz	OSC	1.39	25 1.11
OSC50.0	50.0 MHz	OSC	1.39	25 1.11
OSC64.0	64.0 MHz	OSC	1.39	25 1.11
OSC66.0	66.0 MHz	OSC	1.89	25 1.30
OSC80.0	80.0 MHz	OSC	2.19	25 1.72
OSC100.0	100.0 MHz	OSC	2.49	25 1.99

Oscillator Socket

NEC High-Power Laser Diode

Designed for optical bar code reader and printer applications, this high-power laser diode provides up to 50% more optical power than other devices.

- 6mV maximum optical output power
- Peak output wavelength is 670nm
- Reverse voltage 30V maximum
- AlGaInP visible laser diode

NOL3220S 1 lb\$39.99

TVS/Zener Device Data

Applications data and pinouts on a variety of diodes and transient voltage suppressors. If you're into building your own power supplies, this book is an ideal reference.

MOT150 449 pages, 1994, 2 lbs\$8.99

Thyristor Device Data

This useful reference contains both pinout and application data for thyristor devices such as silicon controlled rectifiers (SCR) and triacs. SCRs are designed for DC applications and triacs work well with resistive AC loads. Reference of SCRs and triacs.

MOT137 486 pages, 2 lbs\$8.99

NEC Optical Semiconductor Devices

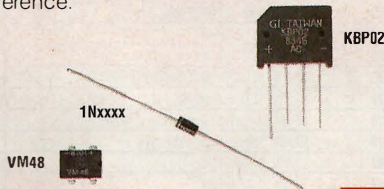
Data sheets on NEC's silicon and germanium detectors, visible laser diodes, pulsed laser diode modules, pump laser diodes, InGaAs detectors, long wavelength LEDs and more.

NECOPTO 290 pages, 1994, 2 lbs\$7.99



Diodes

Use rectifier diodes to pass positive currents and inhibit negative currents. Bridge rectifiers are designed to convert AC signals to DC, making them ideal for power supplies. Apply zener diodes in designs requiring a voltage reference.



Part #	Type	PIV	Watts	Amps	Each	Bulk	
						Qty	Price
KBP02	Bridge	200	-	1.5	.79	30	.62
KBP06	Bridge	600	-	1.5	.99	30	.78
VM48	Bridge	400	-	0.8	.45	50	.40
1N4001	Rectifier	50	-	1.0	.06	500	.04
1N4003	Rectifier	200	-	1.0	.06	500	.04
1N4004	Rectifier	400	-	1.0	.06	500	.04
1N4006	Rectifier	600	-	1.0	.07	500	.05
1N4007	Rectifier	1000	-	1.0	.07	500	.05
1N4148	Switching	75	-	0.5	.04	2000	.03
1N4733	Zener	5.1	1.0	-	.19	500	.10
1N4736	Zener	6.8	1.0	-	.20	500	.13
1N5400	Rectifier	50	-	3.0	.19	500	.10
1N5402	Rectifier	200	-	3.0	.19	500	.10
1N5404	Rectifier	400	-	3.0	.19	500	.10
1N5406	Rectifier	600	-	3.0	.22	500	.12
1N5407	Rectifier	800	-	3.0	.25	500	.15
1N746	Zener	3.3	0.4	-	.12	500	.08
1N751	Zener	5.1	0.4	-	.12	500	.08
1N753	Zener	6.2	0.4	-	.12	500	.08
1N759	Zener	12	0.4	-	.12	500	.08
1N5225B	Zener	3.0	0.5	-	.11	500	.08
1N5231B	Zener	5.1	0.5	-	.11	500	.08
1N5234B	Zener	6.2	0.5	-	.11	500	.08
1N5240B	Zener	10	0.5	-	.10	500	.07
1N5242B	Zener	12	0.5	-	.10	500	.07
1N5245B	Zener	15	0.5	-	.10	500	.07
1N5248B	Zener	18	0.5	-	.08	500	.07
1N5817	Rectifier	20	-	1.0	.22	500	.17
1N5818	Rectifier	30	-	1.0	.25	500	.18
1N5819	Rectifier	40	-	1.0	.25	500	.19
1N5822	Rectifier	40	-	3.0	.39	500	.31
MOT150	Motorola Zener Diodes and Suppressors Databook						8.99

SCR/Triacs

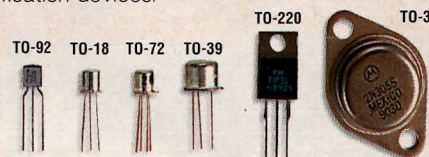
Silicon Controlled Rectifiers are designed for DC applications where once switched on, power remains until supply voltage is removed. Triacs work well with resistive AC loads, automatically switching off at zero crossing.

Part #	Type	Case	PIV	Amps	Each	Bulk	
						Qty	Price
2N5060	SCR	TO-92	25	0.8	.35	100	.28
2N6239	SCR	TO-225	200	4.0	.75	100	.60
2N6240	SCR	TO-225	400	4.0	.85	100	.72
2N6241	SCR	TO-225	600	4.0	.95	100	.77
2N6403	SCR	TO-220	400	16	1.69	100	1.29
2N6404	SCR	TO-220	600	16	1.69	100	1.29
2N6505	SCR	TO-220	100	25	1.99	100	1.50
2N6506	SCR	TO-220	200	25	2.05	100	1.79
2N6507	SCR	TO-220	400	25	1.99	100	1.50
2N6508	SCR	TO-220	600	25	2.29	100	1.99
2N6071A	Triac	TO-225	200	4.0	.99	100	.78
2N6073A	Triac	TO-225	400	4.0	.99	100	.78
2N6075A	Triac	TO-225	600	4.0	1.19	100	.85
2N6346A	Triac	TO-220	200	12	1.49	100	1.25
2N6347A	Triac	TO-220	400	12	1.59	100	1.27
2N6348A	Triac	TO-220	600	12	1.69	100	1.29
C106M	SCR	TO-225	600	4	.45	100	.36
MAC15A8FP*	Triac	TO-220	600	15	1.19	100	.87
MAC218A8	Triac	TO-220	600	8	1.09	100	.82
MAC223A8	Triac	TO-220	600	25	1.29	100	.89
MAC223A8FP*	Triac	TO-220	600	25	1.29	100	.89
MAC224A8	Triac	TO-220	600	40	1.39	100	.92
TSC116B	Triac	TO-202	200	4	.39	100	.31
MOT137	Motorola SCR and Triac Databook						8.99

*Isolated

Transistors

Available in various architectures from high-power Darlington transistors designed for switching applications to low-power RF amplification devices.



Part #	Type	Case	Each	Bulk	
				Qty	Price
IRF640	Hexfet, N-Channel	TO-220	1.79	50	1.52
MPF102	JFET N-Channel	TO-92	.39	200	.27
MPS-A05	NPN medium power	TO-92	.13	200	.08
MPS-A06	NPN medium power	TO-92	.13	200	.08
MPS-A13	NPN Darlington	TO-92	.19	200	.10
MPS-A55	PNP medium power	TO-92	.19	200	.10
MPS-A64	PNP SS Darlington	TO-92	.19	200	.10
MPS2369	NPN saturated switches	TO-92	.19	200	.10
MPS3638	PNP gen pur amplifier/switch	TO-92	.19	200	.10
MPS3704	NPN gen pur amplifier/switch	TO-92	.12	200	.08
MPS3706	NPN gen pur amplifier/switch	TO-92	.12	200	.08
MPQ 2222	NPN gen pur quad	14-PIN DIP	.99	25	.78
MPQ 2907	PNP gen pur quad	14-PIN DIP	.99	25	.78
MPQ 3904	NPN gen pur quad	14-PIN DIP	.99	25	.78
MTP27N10E	MOSFET, N-Channel	TO-220	.99	50	.78
PN2222A	NPN gen pur amp/switch	TO-92	.14	500	.09
PN2907	PNP gen pur amp/switch	TO-92	.10	500	.07
PN2907A	PNP gen pur amp/switch	TO-92	.14	500	.09
PN5139	PNP gen pur amp/switch	TO-92	.19	500	.10
TIP29	NPN 1A 40V power	TO-220	.49	50	.35
TIP30	PNP 1A 40V power	TO-220	.49	50	.35
TIP31	NPN 3A 40V power	TO-220	.49	50	.35
TIP32	PNP 3A 40V power	TO-220	.49	50	.35
TIP41	NPN 6A 40V power	TO-220	.59	50	.49
TIP42	PNP 6A 40V power	TO-220	.59	50	.49
TIP102	NPN 8A 100V pwr Darlington	TO-220	.79	50	.59
TIP105	PNP 8A 60V power Darlington	TO-220	.69	50	.52
TIP120	NPN 8A 60V power	TO-220	.79	50	.59
TIP121	NPN 5A 80V power	TO-220	.59	50	.51
TIP125	PNP 8A 60V power	TO-220	.79	50	.59
TIP126	PNP 8A 80V power	TO-220	.79	50	.59
2N918	NPN RF amplifier/oscillator	TO-72	.45	500	.35
2N2218	NPN gen pur amp/switch	TO-39	.33	200	.25
2N2218A	NPN gen pur amp/switch	TO-39	.33	200	.25
2N2219A	NPN gen pur amp/switch	TO-39	.22	200	.12
2N2222A	NPN gen pur amp/switch	TO-18	.29	200	.25
2N2905	PNP gen pur amp/switch	TO-39	.25	200	.15
2N2907A	PNP gen pur amp/switch	TO-18	.29	200	.25
2N3055	NPN 15A power	TO-3	.79	10	.52
2N3414	NPN gen pur amp/switch	TO-92	.12	500	.08
2N3563	NPN RF amp/oscillator	TO-92	.40	500	.31
2N3772	NPN 20A power	TO-3	1.79	10	1.35
2N3866	NPN RF low power	TO-39	1.39	200	1.07
2N3903	NPN gen pur amp/switch	TO-92	.07	200	.05
2N3904	NPN gen pur amp/switch	TO-92	.10	200	.07
2N3906	PNP gen pur amp/switch	TO-92	.10	200	.07
2N4123	NPN gen pur amp/switch	TO-92	.19	200	.10
2N4124	NPN gen pur amp/switch	TO-92	.19	200	.10
2N4249	PNP low level amplifier	TO-92	.19	200	.10
2N4304	NPN low level amplifier	TO-92	.49	200	.35
2N4400	NPN gen pur amp/switch	TO-92	.10	200	.07
2N4401	NPN gen pur amp/switch	TO-92	.12	200	.08
2N4402	PNP gen pur amp/switch	TO-92	.12	200	.08
2N4403	PNP gen pur amp/switch	TO-92	.19	200	.10
2N4857	JFET N-channel	TO-18	.99	200	.78
2N5086	PNP low level amplifier	TO-92	.19	200	.10
2N5089	NPN low level amplifier	TO-92	.21	200	.11
2N5209	NPN low level amplifier	TO-92	.13	200	.09
2N6043	NPN 8A 60V power Darlington	TO-220	.99	50	.78
2N6045	NPN 8A 100V power Darlington	TO-220	.99	50	.78
2N6052	PNP 12A 100V power Darlington	TO-220	2.19	50	1.82
2N6059	NPN 12A 100V power Darlington	TO-220	2.19	50	1.82
2955T	PNP 10A power	TO-220	.69	50	.49
3055T	NPN 10A power	TO-220	.69	50	.49

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NTE Replacement Semiconductors

NTE has made replacements for thousands of older devices. If you don't see the component you need, we can special order any NTE device.

Part #	Description	Price
NTE24	T-NPN, SI, General Purpose Amp	1.64
NTE36	T-NPN, SI, Audio Power Amp, High Current SW	4.85
NTE37	T-PNP, SI, Audio Power Amp, High Current SW	4.95
NTE46	T-NPN, SI General Purpose Amp	1.96
NTE47	T-NPN, SI LO Noise Amp	1.16
NTE51	T-NPN, HI Volt, HI SP SW	3.97
NTE52	T-NPN, HI Volt, HI SP SW	3.97
NTE53	T-NPN, SI, High-Voltage, High-Speed Switch	6.34
NTE54	T-NPN, AF Power Amp	3.91
NTE55	T-PNP, AF Power Amp	4.80
NTE66	MOSFET-PWR-N-CH, Fast SW	10.70
NTE85	T-NPN, SI General Purpose Amp	.94
NTE89	T-NPN, SI-Horizontal Output	11.75
NTE101	T-PNP, GE, Oscillator, Mixer	5.37
NTE102	T-PNP, GE-AF preamp, DR, PO	3.96
NTE102A	T-PNP, GE-AF preamp, DR, PO	1.98
NTE107	T-NPN, SI-RF/IF amp	1.68
NTE108	T-NPN, SI-RF/IF/VID amp	1.64
NTE109	D-GE-General Purpose, 75 PRV	.62
NTE116	R-SI, 600V, 1A	.73
NTE123	T-NPN, SI-AF Preamp, DR	1.26
NTE123A	T-NPN, SI-AF/RF Amp	1.47
NTE123AP	T-NPN, SI-AF/RF Amp	1.25
NTE125	R-SI, 100V, 2.5A	.79
NTE125-10	NTE125 (10/Pkg)	7.00
NTE128	T-NPN, SI-AF Preamp, OR	2.03
NTE128P	T-NPN, SI General Purpose Amp	1.40
NTE129	T-PNP, SI AF Output	2.22
NTE130	T-NPN, SI-AF PO	4.06
NTE133	FET-AF Amp, Switch	.98
NTE135A	Zener Diode-5.1V, 1W	.99
NTE137A	Zener Diode-6.2V, 1W	.99
NTE139A	Zener Diode-9.1V, 1W	.99
NTE140A	Zener Diode-10.0V, 1W	.99
NTE142A	Zener Diode-12.0V, 1W	.99
NTE145A	Zener Diode-15.0V, 1W	.99
NTE152	T-NPN, SI-AF PO	2.39
NTE153	T-PNP, SI-AF PO	2.90
NTE155	T-NPN GE Audio Power Output	3.60
NTE156	R-SI, 1000V, 3A	1.41
NTE157	T-NPN, SI-HIV AF PO	2.30
NTE159	T-PNP, SI-AF Preamp, OR	1.64
NTE160	T-PNP, GE RF-IF Amp RM Mixer Oscillator	2.80
NTE166	R-SI, Bridge, 100V, 2A	1.98
NTE167	R-SI, Bridge, 200V, 2A	2.36
NTE170	R-SI, Bridge, 1000V, 2A	5.41
NTE171	T-NPN, SI-AF/VID Amp	2.86
NTE172A	T-NPN, AF, SW, SI-Darlington Amp	.98
NTE1722	IC Linear, Switched Mode Power Supp Controller	7.66
NTE1729	IC Linear, PWM Control Kit	4.46
NTE175	T-NPN, SI-AF PO	3.51
NTE177	D-SI, General Purpose DET, 00 PRV	1.08
NTE181	T-NPN, SI-AF Amp	7.90
NTE184	T-NPN, SI-AF PO	2.29
NTE185	T-PNP, SI-AF PO	2.75
NTE188	T-NPN, High Voltage Amp + Driver	3.74
NTE189	T-PNP, SI-AF OR, PO	2.88
NTE194	T-NPN, SI-HIV, General Purpose Amp	1.19
NTE196	T-NPN, SI-AF PO	3.17
NTE197	T-PNP, SI-AF PO	2.88
NTE198	T-NPN, SI-HIV AF, SW	3.61
NTE199	T-NPN, SI-Low-Noise	1.06
NTE219	T-PNP, SI-AF PO, SW	6.97
NTE222	MOSFET-N-CH, VHF Amp/Mix	3.90
NTE238	T-NPN, SI, Horizontal Defl	9.99
NTE243	T-NPN, Darlington V. BA	3.36
NTE253	T-NPN, Darlington 80V, HFE2000	2.37
NTE254	T-PNP, Darlington 80V, HFE2000	2.63
NTE261	T-NPN, Darlington 100V, HFE1000	2.42
NTE262	T-PNP, Darlington 80V, HFE1000	2.71
NTE263	T-NPN, Darlington 80V, HFE1000	2.56
NTE264	T-PNP, Darlington 80V, HFE1000	3.10
NTE265	T-NPN, Darlington 50V, HFE10000	1.44
NTE268	T-NPN, Darlington 50V, HFE1000	1.57
NTE272	T-NPN, Darlington 40V, HFE25000	2.53
NTE284	T-NPN, SI-AF PO, PO 150W	10.43
NTE287	T-NPN, SI-HIV General Purpose Amp	1.05
NTE288	T-PNP, SI-HIV General Purpose Amp	1.05
NTE289A	T-NPN, SI-AF PO, PO 0.6W	1.42
NTE290A	T-PNP, SI-AF PO, PO 0.6W	1.47
NTE291	T-NPN, SI-PO & W, PO 40W	3.37
NTE292	T-PNP, SI-PO & W, PO 40W	3.57

NTE Continued

Part #	Description	Price
NTE293	T-NPN, SI-AF PO, PO 75W	1.84
NTE294	T-PNP, SI-AF PO, PO 75W	1.80
NTE298	T-PNP, SI, Audio Amp and Driver	1.64
NTE303	Heat Sink Compound 1 Gram Tube	2.33
NTE307	T-PNP Audio Power Amp	3.90
NTE312	JFET-N-CH, VHF Amp/Mix	1.34
NTE331	T-NPN, SI-AF PO, REG, SW	3.30
NTE332	T-PNP, SI-AF PO, REG, SW	3.56
NTE373	T-NPN, SI-AF Driver	1.98
NTE374	T-PNP, SI-AF Driver	2.18
NTE375	T-NPN, SI-VERT ODFL	2.92
NTE377	T-NPN, SI-Power Driver, PO	3.10
NTE378	T-PNP, SI-Power Driver, PO	3.38
NTE379	T-NPN, SI-HV HI-SP, PWR SW	7.60
NTE382	T-NPN, SI-AF Driver	2.28
NTE383	T-PNP, SI-AF Driver	2.30
NTE388	T-NPN, SI-HI PWR AF	7.45
NTE392	T-NPN, SI-PWR Amp	6.20
NTE396	T-NPN, SI-Linear Amp & SW	3.35
NTE398	T-PNP, SI-Vert Output	3.20
NTE399	T-NPN, SI-Video Output	3.38
NTE403	Heat Sink Plast. Power Trans, 2 ea.	1.78
NTE422	Insul. Kit For TD-220	1.96
NTE454	MOSFET-Dual Gate, N-CH	2.82
NTE457	JFET-N-CH, General Purpose Amp/SW	1.60
NTE490	MOSFET, N-Chan, Enhanc	.88
NTE506	R-SI HI Cur/Fast Switch	1.78
NTE519	D-SI-Fast Switching	1.08
NTE525	D-SI-Damper, 2000 PRV	6.01
NTE552	R-SI, 600 PRV 1A	1.39
NTE553	D-PIN, UHF/VHF Switch	.98
NTE558	R-SI, 1500V, 1A	2.46
NTE570	D-Controlled Avalanche Diode	1.90
NTE576	R-SI, 400V, 5AMP, 35NS	2.21
NTE577	R-SI, 1000V, 5AMP, 70NS	4.03
NTE579	R-Schottky, 3A 90V	2.75
NTE580	R-SI, 600V, 3A Fast Rec	2.60
NTE584	D-SI, Schottky, FR SW	4.90
NTE585	D-Schottky, 40V 1A	1.29
NTE586	D-Schottky, 40V 3A	1.85
NTE587	D-SI 200V 1A Ultra Fast	1.13
NTE588	D-SI 200V 3A Ultra Fast	1.76
NTE601	VARISTOR-SI	.44
NTE669	Dual Op Amp, High Speed	4.09
NTE890	IC-Linear, Voltage to Frequency Counter	1.98
NTE937	IC-Linear, JFET Input Op Amp	3.22
NTE943M	IC-Linear, Low Power, Low Offset, Dual Voltage	3.88
NTE948	IC-Linear, Quad Op Amp	3.59
NTE1V015	Metal Oxide Varistor, 15V RMS	1.24
NTE1792	IC-Dual Attenuator	3.98
NTE2079	IC-7 Stage Darlington Transistor Array	3.20
NTE2086	IC-4 Stage Darlington Array	5.25
NTE2088	IC-4 Stage Darlington Array Pre Driver	5.25
NTE2V050	MOV, 52V RMS 15V Clamp	1.97
NTE2V130	Metal Oxide Varistor, 35VRMS, 335V Clamp	1.97
NTE2V150	Metal Oxide Varistor, 150V RMS	2.32
NTE2V250	Metal Oxide Varistor, 250V RMS	2.83
NTE2300	T-NPN, SI, High Voltage	7.52
NTE2302	T-NPN, SI, Horizontal Output	6.44
NTE2309	T-NPN, SI, HV Switch, 900V, BA	6.79
NTE2311	T-NPN, SI, High Voltage Switch	15.63
NTE2312	T-NPN, SI, High Voltage Switch	5.29
NTE2315	T-NPN, SI, Darlington	5.90
NTE2318	T-NPN, SI, High Voltage Int Damper Diode	8.75
NTE2319	T-NPN, SI, High Voltage Hi Speed Power Switch	14.34
NTE2324	T-NPN, SI, High Voltage Switch	9.10
NTE2325	T-NPN, SI, High Voltage Switch	2.95
NTE2328	T-NPN, SI, Audio Power Amp	6.39
NTE2329	T-PNP, SI, Audio Power Amp	6.12
NTE2331	T-NPN, SI, TV Horizontal Defl	6.98
NTE2337	T-NPN, SI, High-Speed Switch	6.72
NTE2343	T-NPN, SI, Darlington	2.20
NTE2344	T-PNP, SI, Darlington	2.20
NTE2353	T-NPN, SI, Color TV Output	6.10
NTE2354	T-NPN, SI, High Voltage	8.26
NTE2355	T-NPN, SI, With 10K Resistor	.99
NTE2361	T-NPN, SI, High-Speed Switch	1.10
NTE2376	MOSFET-N Channel Power	12.02
NTE2383	MOSFET-POWER, P-CH, High Speed	9.35
NTE2385	MOSFET-POWER, 500V, BA	6.56
NTE2388	MOSFET-POWER, N-Channel	7.73
NTE2389	MOSFET-POWER, N-Channel	4.36
NTE2392	MOSFET-POWER, N-Channel, High Speed	19.31
NTE2395	MOSFET-POWER, N-Channel	5.99
NTE2406	T-NPN, SI General Purpose Amp	2.14
NTE2501	T-NPN, SI, High Voltage for Video Output	2.26
NTE3100	Opto Interruptor Module NPN Trans Output	7.37
NTE3020	LED-RED, T-1 3/4, 2 ea. w/mtg. hardware	1.16
NTE3035A	NPN-SI, Photo Darlington	2.27

NTE Continued

Part #	Description	Price
NTE3040	Opto-isolator/Trans	1.94
NTE3041	Opto-isolator/Trans	2.11
NTE3043	Opto-isolator, NPN Transistor Output	3.10
NTE3047	Opto-isolator/Triac	3.13
NTE3083	Opto-isolator/Trans	2.59
NTE3086	Opto-isolator/Trans	3.98
NTE3092	Optocoupler/Transistor	4.92
NTE3098	Opto-isolator Trans Out	2.30
NTE4900	Trans Supp 5.0V	2.46
NTE4927	Trans Supp BI-Dir, 17 1V	3.62
NTE4988	Zener Overvoltage Transient Suppressor	4.90
NTE5002A	Zener Diode 2.7V, 1/2W	.79
NTE5009A	Zener Diode-4.7V, 1/2W	.79
NTE5010A	Zener Diode-5.1V, 1/2W	.79
NTE5011A	Zener Diode-5.6V, 1/2W	.79
NTE5012A	Zener Diode-6.0V, 1/2W 5%	.79
NTE5013A	Zener Diode-6.2V, 1/2W	.79
NTE5018A	Zener Diode-9.1V, 1/2W	.79
NTE5019A	Zener Diode, 10V 1/2W, 5%	.79
NTE5021A	Zener Diode-12.0V, 1/2W	.79
NTE5029A	Zener Diode-20.0V, 1/2W	.79
NTE5049A	Zener Diode-91.0V, 1/2W	.79
NTE5077A	Zener Diode-18.0V, 1W	.99
NTE5079A	Zener Diode-20.0V, 1W	.99
NTE5116A	Zener Diode 5.1V, 5W	2.18
NTE5117A	Zener Diode-5.6V, 5W	2.18
NTE5127A	Zener Diode-12.0V, 5W	2.18
NTE5130A	Zener Diode-15.0V, 5W	2.18
NTE5133A	Zener Diode-1/2W, 5%	2.18
NTE5139A	Zener Diode	2.18
NTE5304	R-SI, BRG, 400V, 1.5A	1.73
NTE5307	R-SI Bridge 1000V, 1.5A TD5	2.56
NTE5312	Bridge Rectifier, SI, 100V, BA	3.42
NTE5313	R-SI, Bridge, 200V, BA	3.67
NTE5314	R-SI, Bridge, 400V, BA	4.10
NTE5322	R-SI, Bridge, 200V, 25A	5.75
NTE5324	R-SI, Bridge, 400V/25A	6.40
NTE5326	R-SI, Bridge, 600V, 25A	6.80
NTE5332	R-SI, Bridge, 600V, 1A	1.67
NTE5340	R-SI, Bridge, 200V, 40A	8.70
NTE5342	R-SI, Bridge, 600V, 40A	10.85
NTE5344	R-SI, Bridge, 1000V, 40A	12.50
NTE5400	SCR-30 VRM, 0.8A	.86
NTE5401	SCR-60 VRM, 0.8A	1.05
NTE5402	SCR-100 VRM, 0.8A	1.12
NTE5404	SCR-200 VRM, 0.8A	1.25
NTE5424	SCR-400V 4.7A High Speed	6.87
NTE5429	SCR-600VRM, 7A	7.50
NTE5455	SCR, 200V/4A Sensitive Gate	1.870
NTE5457	SCR-400 VRM, 4.0A	1.96
NTE5465	SCR-400VRM, 10A	3.10
NTE5529	SCR 600V, 25A	11.69
NTE5547	SCR 600VRM, 25A	16.49
NTE5608	TRIAC-400VRM, BA, GATE	2.72
NTE5620	TRIAC-800V, BA, isolated	6.14
NTE5629	TRIAC-400VRM, 4A	2.11
NTE5645	TRIAC-600VRM, 10A, ITAB	3.92
NTE5651	TRIAC-200VRM, 2.5A	4.55
NTE5652	TRIAC-400VRM, 2.5A	6.90
NTE5800	R-50 PRV, 3A, Axial Lead	.51
NTE5801	R-100 PRV, 3A, Axial Lead	.76
NTE5802	R-200 PRV, 3A, Axial Lead	.87
NTE5804	R-400 PRV, 3A, Axial Lead	1.18
NTE5806	R-600V PRV, 3A, Axial Lead	1.46
NTE5808	R-800 PRV, 3A, Axial Lead	1.93
NTE5809	R-1000 PRV, 3A, Axial Lead	2.60
NTE5812	R-100 PRV, 6A, Axial Lead	1.58
NTE5814	R-400 PRV, 6A, Axial Lead	1.84
NTE5815	R-600 PRV, 6A, Axial Lead	2.89
NTE5817	R-1000 PRV, 6A, Axial Lead	3.70
NTE5827	R-400 PRV, 50A, Anode Case	6.05
NTE5990	R-400 PRV, 40A, Cathode Case	7.69
NTE6043	R-800P 60AMMP Anode Case	17.95
NTE6401	T-Unijunction, SI	5.98
NTE6402	T-PROG Unijunction, SI	1.54
NTE6408	D-DIAC, 32V +4V, 2A	1.11
NTE6409	T-Unijunction, SI	6.43
NTE6410	T-Unijunction, SI	5.09
NTE7002	IC-Linear, Switch Mode Power Supply Cntrl	6.56
NTE5645	TRIAC-600VRM, 10A, ITAB	3.92
NTE8090	Thermal Fuse 93°C	1.20
NTE8108	Thermal Fuse 109°C	1.20
NTE8115	Thermal Fuse 117°C	1.20
NTE8118	Thermal Fuse 121°C	1.20
NTE8125	Thermal Fuse 128°C	1.20
NTE8139	Thermal Fuse 141°C	1.20
NTE8149	Thermal Fuse 152°C	1.20
NTE8167	Thermal Fuse 169°C	1.20
NTE8181	Thermal Fuse 184°C	1.20



NTE Continued

Part #	Description	Price
NTE8213	Thermal Fuse 216°C	1.20
NTE8226	Thermal Fuse 228°C	1.20
NTE8242	Thermal Fuse 240°C	1.20
NTE524V13	Metal Oxide Varistor, 130V RMS	2.90
NTE524V15	Metal Oxide Varistor, 150V RMS	2.90
NTE56004	TRIAC-200 VRM, 15 A	3.80
NTE56026	TRIAC, 600VRM, 40A (Isolated Stud)	16.36



NTE Integrated Circuits

Below are listed the most popular NTE replacement integrated circuits.

Part #	Description	Price
NTE1117	AF PO, 2W	6.25
NTE778A	Dual Op Amp, 8-pin DIP	3.81
NTE834	Quad Comparator	2.88
NTE858M	Dual JFET Input Op Amp	3.63
NTE859	Quad JFET Input Op Amp	3.98
NTE923D	Precision VR, 14 Lead	1.50
NTE928M	Dual Low Power Op Amp	3.13
NTE941	Frequency Comp Op Amp	1.92
NTE941M	Frequency Comp Op Amp	0.99
NTE950	Pos Voltage regulator, 12V, 100mA	2.24
NTE955M	Timer/Oscillator	1.86
NTE956	Pos Voltage regulator, 1.2-37VM, 1.5A	3.22
NTE960	Pos Voltage regulator, 5V, 1A	3.73
NTE964	Pos Voltage regulator, 8V, 1A	3.55
NTE966	Pos Voltage regulator, 12V, 1A	3.93
NTE968	Pos Voltage regulator, 15V, 1A	3.85
NTE977	Pos Voltage regulator, 5V, 100mA	1.77
NTE981	Pos Voltage regulator, 8V, 100mA	2.10
NTE987	Quad Op Amp	2.48
NTE1792	Dual Attenuator	3.98
NTE2013	7-channel CMOS/TTL DR	3.58
NTE2018	8-channel CMOS/TTL DR	3.51



NTE QuickCross Software

This PC-based software package provides NTE's device cross reference listing for over 250,000 different devices. Available in DOS or Windows versions, this software is indispensable for technicians and engineers.

- Software cross reference for over 250,000 different devices
- DOS and Windows versions available on 3.5" diskette

NTE-CQ004	DOS version, 1 lb	\$7.99
NTE-CQ005	Windows version, 1 lb	\$8.99



NTE Technical Guide and Cross Reference

This data book provides a listing of over 4,000 NTE devices that can be cross referenced to over 250,000 different devices from US, Asian and European part numbers.



- Over 4,000 NTE products cross referenced to over 250,000 different devices
- See JDR part# NTE-CQ004 or NTE-CQ005 for software version

NTE-CRM8	673 pages, 3 lbs	\$4.99
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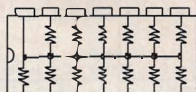


Resistor Networks

Resistor networks provide a neat, efficient means for adding resistors to your project. To order, see note below. For example, the part number for a 470 ohm SIP, 7 Resistor pkg is RPS7-470.

14-Pin DIP, 13 Resistor, Bussed

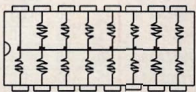
These 14-pin devices are ideal for terminating large numbers of signals. Available in 100, 220, 470, 680, 1.0k, 2.0k, 2.2k, 3.3k, 6.8k, 10k, 22k, 33k, 47k and 100k ohm values.



RPD13-xxx	\$.49 or 25 @ \$.39 ea.
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16-Pin DIP, 15 Resistor, Bussed

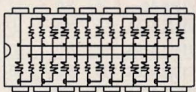
These 16-pin devices can be used in wire-wrapped projects by inserting into DIP wire-wrap sockets. Available in 100, 220, 330, 470, 1.0k, 2.2k, 3.3k, 4.7k, 6.8k, 10k, 22k, 33k and 47k ohm values.



RPD15-xxx	\$.49 or 25 @ \$.39 ea.
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16-Pin DIP, 14-Line Terminator

These 16-pin DIP resistor packs are used to tie signals to two separate voltages through two separate resistors. Available in 220/270 and 220/330 ohm splits. Replace xxx/xxx in part number with the desired values.



RPD28-xxx/xxx	\$.99 or 25 @ \$.64 ea.
---------------	--------------------------

Note: To order, Insert resistance value in place of xxx in part number

Resistors

These resistors feature 1/4 watt 5% tolerance, carbon film. Standard values range from 1 ohm to 10M ohms. To order, ask for Rxxx, where xxx is the resistance value.

10 pieces of same value (Minimum Qty.)05 ea.
100 pieces of same value019 ea.
1000 pieces of same value009 ea.

Resistor Values

1.0	3.3	10	33	100	330	1.0k	3.3k	10k	33k	100k	330k	1.0M	3.3M
1.1	3.6	11	36	110	360	1.1k	3.6k	11k	36k	110k	360k	1.1M	3.6M
1.2	3.9	12	39	120	390	1.2k	3.9k	12k	39k	120k	390k	1.2M	3.9M
1.3	4.3	13	43	130	430	1.3k	4.3k	13k	43k	130k	430k	1.3M	4.3M
1.5	4.7	15	47	150	470	1.5k	4.7k	15k	47k	150k	470k	1.5M	4.7M
1.6	5.1	16	51	160	510	1.6k	5.1k	16k	51k	160k	510k	1.6M	5.1M
1.8	5.6	18	56	180	560	1.8k	5.6k	18k	56k	180k	560k	1.8M	5.6M
2.0	6.2	20	62	200	620	2.0k	6.2k	20k	62k	200k	620k	2.0M	6.2M
2.2	6.8	22	68	220	680	2.2k	6.8k	22k	68k	220k	680k	2.2M	6.8M
2.4	7.5	24	75	240	750	2.4k	7.5k	24k	75k	240k	750k	2.4M	7.5M
2.7	8.2	27	82	270	820	2.7k	8.2k	27k	82k	270k	820k	2.7M	8.2M
3.0	9.1	30	91	300	910	3.0k	9.1k	30k	91k	300k	910k	3.0M	9.1M

10M

Resistor Assortment Kit

Why delay a project because you don't have a specific resistor available? Do you really want to wait a day or more to get one? This kit includes 30 of our most popular values, and all can be neatly tucked away in the 20-drawer cabinet we include. You get a total of 3,000 resistors (100 of each value), plus labels for each value.

- Includes 100 each of 30 popular values: 10, 15, 22, 33, 47, 68, 100, 150, 220, 330, 470, 680, 1k, 1.5k, 2.2k, 3.3k, 4.7k, 6.8k, 10k, 15k, 22k, 33k, 47k, 68k, 100k, 150k, 220k, 330k, 470k, 680k



- 1/4 watt, 5%, carbon film resistors
- Includes 20-drawer cabinet with 20 dividers
- Drawer labels provide quick access

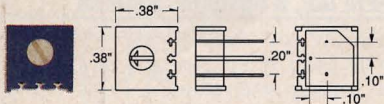
RA30	8 lbs	\$39.99
RA1	Above resistors only, 2 lbs	\$29.99
DIVIDER	10 additional dividers, 1 lb	\$1.99



Potentiometers

PCB Potentiometers, 1/2 Watt

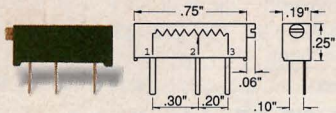
These top-adjusting single-turn 1/2 watt Cermet potentiometers require minimal space. Available in 100, 200, 500, 1.0k, 2.0k, 5.0k, 10k, 20k, 50k, 100k, 200k, 500k, 1.0M and 2.0M ohm values.



72PRxxx \$.79 or 100 @ \$.59 ea.

15-Turn Potentiometers, 3/4 Watt

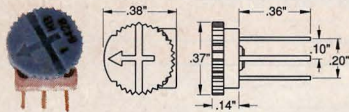
These Cermet potentiometers are ideal for circuits requiring precision control. Available in 100, 200, 500, 1.0k, 2.0k, 5.0k, 10k, 20k, 50k, 100k, 200k, 500k, 1.0M and 2.0M ohm values.



89PRxxx \$.99 or 100 @ \$.79 ea.

Side-Adjust Potentiometers, 1/2 Watt

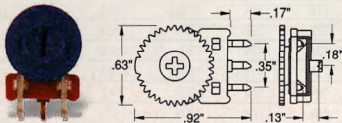
Side-adjust single-turn Cermet potentiometers are ideal for PC board use. Available in 100, 200, 500, 1.0k, 2.0k, 5.0k, 10k, 20k, 50k, 100k, 200k, 500k and 1.0M ohm values



91ARxxx \$.99 or 100 @ \$.79 ea.

Thumbwheel Potentiometers, 1/4 Watt

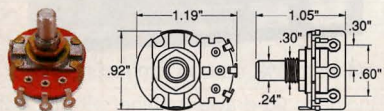
Ideal for applications requiring a finger-adjustable potentiometer attached to the development board. Available in 2.5k, 5.0k, 10k and 250k ohm values. Stand-up style.



THUMB-xxx \$.89 or 100 @ \$.69 ea.

1/4" Shaft Potentiometers, 1/2 Watt

Usually mounted for external control, these linear taper half-watt potentiometers feature a 1/4" diameter shaft that extends .4" from the bushing. Available in 1.0k, 5.0k, 10k, 100k and 1.0M values.



POTxxx \$.89 or 100 @ \$.69 ea.

Metal Oxide Varistors

By clamping high-energy, short-duration impulses, these devices protect valuable equipment from potential power surge damage. Choose the clamping voltage that meets your application's requirements.



Part #	Continuous		Transient		Clamping		Bulk	
	RMS V	DC V	Joules	Amps	Volts	Amps	Each	Qty Price
V82A1	4	5.5	0.4	100	22	5	.36	100 .27
V82A2	4	5.5	0.8	250	20	5	.59	100 .49
V122A1	6	8	0.6	250	34	5	.39	100 .29
V222A1	14	18*	0.9	250	47	5	.39	100 .29
V272A05	17	22	0.25	50	59	2	.29	100 .19
V272A1	17	22	1.0	250	57	5	.33	100 .26
V32A1	25	31	1.5	250	79	5	.36	100 .27
V32A6	25	31	7.2	1000	76	10	.54	100 .46
V562A2	35	45	2.3	250	107	5	.33	100 .27
V562A8	35	45	10	1000	103	10	.59	100 .49
V682A10	40	56	13	1000	123	10	.69	100 .52
V1202A1	75	102	6.0	1200	205	10	.39	100 .29
V1502A1	95	127	8.0	1200	250	10	.49	100 .35
V1502A8	95	127	30	4500	255	50	.49	100 .35
V2202A05	140	180	2.0	200	360	2	.19	100 .10
V320LA2	130	175	11	1200	340	10	.39	100 .29
V130LA10A	130	175	38	4500	340	50	.49	100 .35
V130LA20A	130	175	70	6500	340	100	.69	100 .52
V130LA20B	130	175	70	6500	325	100	.69	100 .52
V150LA2	150	200	13	1200	395	10	.49	100 .35
V150LA10A	150	200	45	4500	395	50	.49	100 .35
V150LA20A	150	200	80	6500	395	100	.69	100 .52
V150LA20B	150	200	80	6500	360	100	.69	100 .52
V250LA20A	250	330	72	4500	650	50	.59	100 .49
V275LA20A	275	369	75	4500	710	50	.59	100 .49
V275LA40A	275	369	140	6500	710	100	.79	100 .59
V275LA40B	275	369	140	6500	680	100	.89	100 .59

Variable Capacitors

Variable capacitors, also known as trimmer capacitors, are ideal for tuning RF circuits.

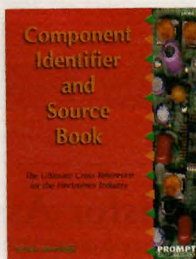
NEW!



Part #	Description	Bulk	
		Each	Qty Price
VC3-23	Variable Capacitor, 2.8 to 23pf	1.19	200 .85
VC4-34	Variable Capacitor, 4 to 34pf	1.19	200 .85
VC7-70	Variable Capacitor, 7 to 70pf	1.19	200 .85
VC12-100	Variable Capacitor, 12 to 100pf	1.29	200 .95

Component Identifier and Source Book

This book will be a very important tool for you! Identify a wide variety of components from a part number or a schematic, or locate a manufacturer from a logo. Cross reference component types, trade names, abbreviations and part number prefixes to manufacturers.

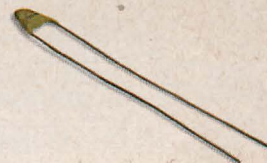


SAMS-1088-4 353 pages, 2 lbs\$24.99

Order Toll Free!
1-800-538-5000

Monolithic Capacitors

High-reliability and resistance to damp heat. $\pm 20\%$ tolerance.



Part #	Value	Volts	Lead Spacing	Bulk	
				Each	Qty Price
10PF-MONO	10 pf	50	.1"	.07	500 .05
22PF-MONO	22 pf	50	.1"	.07	500 .05
39PF-MONO	39 pf	50	.1"	.07	500 .05
47PF-MONO	47 pf	50	.1"	.07	500 .05
56PF-MONO	56 pf	50	.1"	.07	500 .05
68PF-MONO	68 pf	50	.1"	.07	500 .05
82PF-MONO	82 pf	50	.1"	.07	500 .05
100PF-MONO	100 pf	50	.1"	.07	500 .05
220PF-MONO	220 pf	50	.1"	.07	500 .05
390PF-MONO	390 pf	50	.1"	.07	500 .05
470PF-MONO	470 pf	50	.1"	.07	500 .05
560PF-MONO	560 pf	50	.1"	.07	500 .05
680PF-MONO	680 pf	50	.1"	.07	500 .05
820PF-MONO	820 pf	50	.1"	.07	500 .05
.001UF-MONO	.001 uf	50	.1"	.07	500 .05
.01UF-MONO	.01 uf	50	.1"	.09	500 .06
.022UF-MONO	.022 uf	50	.1"	.09	500 .06
.039UF-MONO	.039 uf	50	.1"	.09	500 .06
.047UF-MONO	.047 uf	50	.1"	.12	500 .09
.068UF-MONO	.068 uf	50	.1"	.12	500 .09
.082UF-MONO	.082 uf	50	.1"	.12	500 .09
.1UF-MONO	.1 uf	50	.1"	.16	500 .13
.22UF-MONO	.22 uf	50	.1"	.17	500 .14
.47UF-MONO	.47 uf	50	.1"	.21	500 .17
.68UF-MONO	.68 uf	50	.1"	.21	500 .17
1.0UF-MONO	1.0 uf	50	.1"	.29	500 .22
1.0UF-MONO-2	1.0 uf	50	.2"	.29	500 .22
2.2UF-MONO	2.2 uf	50	.1"	.31	500 .26
2.2UF-MONO-2	2.2 uf	50	.2"	.31	500 .26
4.7UF-MONO	4.7 uf	50	.1"	.35	500 .28
4.7UF-MONO-2	4.7 uf	50	.2"	.35	500 .28

Ceramic Disc Capacitors

For low losses over a wide frequency range and a high stability of capacitance. Linear temperature coefficient of capacitance. $\pm 20\%$ tolerance.



Part #	Value	Volts	Lead Spacing	Bulk	
				Each	Qty Price
10PF	10 pf	50	.1"	.05	500 .04
22PF	22 pf	50	.1"	.05	500 .04
27PF	27 pf	50	.1"	.05	500 .04
33PF	33 pf	50	.1"	.05	500 .04
47PF	47 pf	50	.1"	.05	500 .04
56PF	56 pf	50	.1"	.05	500 .04
68PF	68 pf	50	.1"	.05	500 .04
82PF	82 pf	50	.1"	.05	500 .04
100PF	100 pf	50	.1"	.05	500 .04
220PF	220 pf	50	.1"	.05	500 .04
330PF	330 pf	50	.1"	.05	500 .04
470PF	470 pf	50	.1"	.05	500 .04
560PF	560 pf	50	.1"	.05	500 .04
680PF	680 pf	50	.1"	.05	500 .04
820PF	820 pf	50	.1"	.05	500 .04
.001UF	.001 uf	50	.1"	.05	500 .04
.0015UF	.0015 uf	50	.1"	.05	500 .04
.0022UF	.0022 uf	50	.1"	.05	500 .04
.0047UF	.0047 uf	50	.1"	.05	500 .04
.01UF	.01 uf	50	.2"	.05	500 .04
.02UF	.02 uf	50	.2"	.05	500 .04
.047UF	.047 uf	50	.2"	.05	500 .04
.1UF	.1 uf	50	.2"	.10	500 .08

www.jdr.com

Axial Electrolytic

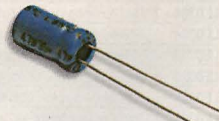
For restricted height printed circuit applications. Polarized, $\pm 20\%$ tolerance.



Part #	Value	Volts	Len	Dia	Each	Bulk	
						Qty	Price
47A100	47 μ f	100	.433"	.248"	.15	500	.11
1A100	1 μ f	100	.433"	.248"	.15	500	.11
22A100	22 μ f	100	.433"	.248"	.15	500	.11
47A100	47 μ f	100	.433"	.248"	.14	500	.09
10A63	10 μ f	63	.433"	.248"	.16	500	.12
10A100	10 μ f	100	.630"	.248"	.20	500	.14
22A35	22 μ f	35	.512"	.248"	.16	500	.09
22A50	22 μ f	50	.629"	.248"	.22	500	.16
47A16	47 μ f	16	.433"	.248"	.15	500	.10
47A50	47 μ f	50	.630"	.248"	.23	500	.18
100A16	100 μ f	16	.630"	.248"	.19	500	.14
100A50	100 μ f	50	.630"	.315"	.25	500	.19
220A16	220 μ f	16	.630"	.315"	.22	500	.16
220A50	220 μ f	50	.787"	.394"	.32	200	.19
470A16	470 μ f	16	.787"	.315"	.41	100	.34
470A50	470 μ f	50	.984"	.512"	.45	200	.35
1000A16	1000 μ f	16	.629"	.394"	.45	200	.36
1000A50	1000 μ f	50	.984"	.630"	.79	100	.62
2200A16	2200 μ f	16	1.181"	.512"	.59	200	.47
2200A35	2200 μ f	35	1.181"	.630"	1.09	100	.99
4700A16	4700 μ f	16	1.181"	.630"	1.15	100	.92

Radial Electrolytic

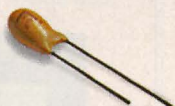
Reduces the surface area used by each capacitor. Polarized, $\pm 20\%$ tolerance.



Part #	Value	Volts	Lead Spacing	Len	Dia	Each	Bulk	
							Qty	Price
47R100	47 μ f	100	.079"	.433"	.197"	.10	1000	.08
1R100	1 μ f	100	.079"	.433"	.197"	.10	1000	.07
22R100	22 μ f	100	.079"	.433"	.197"	.10	1000	.07
33R100	33 μ f	100	.079"	.433"	.197"	.10	1000	.07
47R100	47 μ f	100	.079"	.433"	.197"	.10	1000	.07
10R63	10 μ f	63	.079"	.433"	.197"	.10	1000	.07
10R100	10 μ f	100	.098"	.433"	.236"	.12	1000	.09
22R35	22 μ f	35	.079"	.433"	.197"	.11	1000	.08
33R35	33 μ f	35	.098"	.433"	.236"	.12	1000	.08
47R16	47 μ f	16	.079"	.433"	.197"	.09	1000	.06
47R63	47 μ f	63	.138"	.472"	.315"	.12	500	.09
100R16	100 μ f	16	.098"	.433"	.236"	.14	1000	.10
100R50	100 μ f	50	.138"	.551"	.315"	.18	500	.12
220R16	220 μ f	16	.138"	.472"	.315"	.15	1000	.09
220R35	220 μ f	35	.138"	.629"	.315"	.18	500	.13
330R50	330 μ f	50	.197"	.827"	.394"	.21	500	.17
470R16	470 μ f	16	.138"	.551"	.315"	.21	500	.14
470R35	470 μ f	35	.197"	.827"	.394"	.23	500	.16
470R50	470 μ f	50	.197"	.827"	.551"	.33	200	.25
1000R16	1000 μ f	16	.197"	.669"	.394"	.25	500	.18
1000R50	1000 μ f	50	.295"	1.024"	.630"	.78	100	.62
2200R16	2200 μ f	16	.197"	.827"	.512"	.55	500	.46
2200R35	2200 μ f	35	.295"	1.220"	.630"	.89	100	.69
4700R35	4700 μ f	35	.413"	1.417"	.787"	1.25	50	1.03

Tantalum

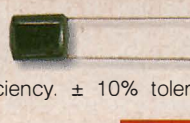
Polarized; for DC applications; for decoupling high-speed circuits. $\pm 20\%$ tolerance, solid, dipped epoxy resin.



Part #	Value	Volts	Lead Spacing	Each	Bulk	
					Qty	Price
T.1-35	1 μ f	35	.1"	.15	1000	.10
T.22-35	22 μ f	35	.1"	.15	1000	.10
T.33-35	33 μ f	35	.1"	.15	1000	.10
T.47-35	47 μ f	35	.1"	.15	1000	.10
T.68-35	68 μ f	35	.1"	.15	1000	.10
T10-16	1 μ f	16	.1"	.16	1000	.11
T10-35	1 μ f	35	.1"	.18	1000	.13
T22-16	22 μ f	16	.1"	.18	1000	.13
T22-35	22 μ f	35	.1"	.23	1000	.16
T33-35	33 μ f	35	.1"	.25	1000	.18

Mylar (polyester film)

Ideal for bypass and coupling in DC circuits. Non-inductive construction and volumetric efficiency. $\pm 10\%$ tolerance.



Part #	Value	Volts	Lead Spacing	Each	Bulk	
					Qty	Price
M.001	.001 μ f	100	.118"	.08	500	.06
M.0015	.0015 μ f	100	.118"	.08	500	.06
M.0022	.0022 μ f	100	.118"	.08	500	.06
M.0033	.0033 μ f	100	.118"	.09	500	.07
M.0047	.0047 μ f	100	.118"	.09	500	.07
M.0068	.0068 μ f	100	.118"	.09	500	.07
M.01	.01 μ f	100	.118"	.09	500	.07
M.015	.015 μ f	100	.138"	.11	500	.08
M.022	.022 μ f	100	.177"	.11	500	.08
M.033	.033 μ f	100	.177"	.13	500	.09
M.039	.039 μ f	100	.217"	.13	500	.09
M.047	.047 μ f	100	.217"	.13	500	.09
M.068	.068 μ f	100	.236"	.16	500	.12
M.082	.082 μ f	100	.236"	.16	500	.12
M.1	.1 μ f	100	.276"	.16	500	.12
M.12	.12 μ f	100	.276"	.23	500	.16
M.15	.15 μ f	100	.276"	.23	500	.16
M.18	.18 μ f	100	.276"	.23	500	.16
M.22	.22 μ f	100	.295"	.23	500	.16
M.27	.27 μ f	100	.315"	.25	500	.19
M.33	.33 μ f	100	.315"	.25	500	.19
M.39	.39 μ f	100	.374"	.29	500	.22
M.47	.47 μ f	100	.394"	.29	500	.22
M1	1.0 μ f	100	.600"	.52	100	.35

Silver Mica

Non-polarized devices for use in RF circuits. $\pm 5\%$ tolerance, DM15 case.



Part #	Value	Volts	Lead Spacing	Each	Bulk	
					Qty	Price
SM-10	10 pf	300	.3"	.29	500	.22
SM-12	12 pf	300	.3"	.29	500	.22
SM-22	22 pf	300	.3"	.29	500	.22
SM-27	27 pf	300	.3"	.29	500	.22
SM-30	30 pf	300	.3"	.29	500	.22
SM-33	33 pf	300	.3"	.29	500	.22
SM-39	39 pf	300	.3"	.29	500	.22
SM-47	47 pf	300	.3"	.29	500	.22
SM-56	56 pf	300	.3"	.29	500	.22
SM-68	68 pf	300	.3"	.35	500	.27
SM-82	82 pf	300	.3"	.35	500	.27
SM-100	100 pf	300	.3"	.35	500	.26
SM-120	120 pf	300	.3"	.35	500	.27
SM-180	180 pf	300	.3"	.35	500	.27
SM-220	220 pf	300	.3"	.35	500	.27
SM-330	330 pf	300	.3"	.35	500	.27
SM-470	470 pf	300	.3"	.35	500	.27
SM-510	510 pf	300	.3"	.55	500	.44
SM-560	560 pf	300	.3"	.55	500	.44
SM-620	620 pf	300	.3"	.55	500	.44
SM-680	680 pf	300	.3"	.59	500	.46
SM-820	820 pf	300	.3"	.59	500	.46
SM-1000	1000 pf	100	.4"	.89	500	.66

Order Toll Free!
1-800-538-5000

Part #	Value	Volts	Lead Spacing	Each	Bulk	
					Qty	Price
T4.7-16	4.7 μ f	16	.1"	.25	1000	.18
T4.7-35	4.7 μ f	35	.1"	.29	500	.21
T6.8-25	6.8 μ f	25	.1"	.29	500	.21
T10-10	10 μ f	10	.1"	.29	1000	.21
T10-25	10 μ f	25	.1"	.39	500	.25
T10-35	10 μ f	35	.1"	.39	500	.31
T15-16	15 μ f	16	.1"	.45	500	.37
T22-10	22 μ f	10	.1"	.39	500	.31
T22-16	22 μ f	16	.1"	.45	500	.37
T33-25	33 μ f	25	.2"	.69	200	.61
T47-25	47 μ f	25	.2"	1.19	200	.92

Opto-Isolators

Protect sensitive digital circuits from the high-powered devices they control. These devices eliminate any direct electrical connection by packaging an LED emitter and photodetector in one package.



Part #	# Pins	Voltage	Each	Bulk	
				Qty	Price
H11AA1	6	2.5kV	.79	50	.65
H11C5	6	7.5kV	1.49	50	1.25
HL-74	16	2.5kV	2.95	25	2.35
MCA-255	6	2.5kV	.99	50	.78
MCT-2	6	2.5kV	.49	50	.35
MCT-6	8	2.5kV	1.09	50	.80
MOC3010	6	7.5kV	.79	50	.52
MOC3011	6	7.5kV	.79	50	.52
MOC3020	6	7.5kV	.89	50	.59
MOC3021	6	7.5kV	.89	60	.59
PC900V	6	5.0kV	2.09	60	1.69
TIL-111	6	1.5kV	.89	59	.59
TIL-113	6	1.5kV	.89	50	.59
4N25	6	2.5kV	.39	50	.29
4N26	6	1.5kV	.39	50	.29
4N27	6	1.5kV	.39	50	.29
4N28	6	.5kV	.39	50	.29
4N32	6	2.5kV	.39	60	.29
4N33	6	1.5kV	.39	65	.29
4N35	6	2.5kV	.39	50	.29
4N37	6	3.5kV	.49	50	.35
4N38	6	2.5kV	.49	50	.35
6N136	8	3.0kV	1.39	50	.99
6N139	8	2.5kV	1.29	50	1.09

www.jdr.com

Derick's High Tech Corner



What Are You Waiting For?

You wouldn't be reading this column if technology subjects turned you off, so we'll proceed with the assumption that you already own a computer. Safe so far!

Now come the real questions. Do you have an Internet presence? Can you send and receive e-mail?

If you didn't answer "yes", you really should analyze your reasons for staying on the outside. I'll try to anticipate those reasons and nullify them.

Cost shouldn't be the reason! You can go on-line for less than \$10 per month. In fact many access providers allow free e-mail access if you can tolerate a little advertising attached to the end of your messages.

Complexity isn't a good answer either. The major OS's provide simple interfaces to dial-up access, and most of the access providers include software with scripts to get you on-line automatically.

And please don't try to avoid the simple usefulness of access by saying you didn't need it



Tri-Color LED

This unique LED has red, green and blue junctions. Design this device into your next project for a truly unique look.



LED177 Full-color 5mm diffused LED, 1 lb\$4.99

Infrared Detector

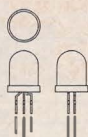
Use this IR detector to check infrared LED activity on your remote control or other active IR source. Simply point the detector toward the IR source and the unit's green LED will glow in proportion to the intensity of the IR signal. The detector will not false trigger from background sources and the unit can run off of a standard 9V battery.

- Checks for active infrared source emitting from any IR device like remote controls or active security systems
- Will not false trigger from background sources
- Runs off of 3-9VDC; 9V battery clip included

IR-DET 1 lb\$9.99

Discrete LEDs

Round and rectangular diffused LEDs in red, green, yellow and blue are ideal status indicators. Use flashing devices for additional impact. Bipolar devices can display multiple colors based on current and period of frequency.



LED178



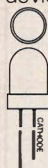
LED177



Bi-polar



2 x 5



10mm



5mm



3mm

Part #	Type	Color	Lens	Size	Light Intensity		Forward Current (ma)	Each	BULK	
					Min (mcd)	MAX (mcd)			Qty	Price
LED100	ROUND	GREEN	DIFFUSED	3mm	12.5	50	25	.11	1000	.08
LED101	ROUND	RED	DIFFUSED	3mm	8	32	30	.11	1000	.08
LED102	ROUND	YELLOW	DIFFUSED	3mm	8	32	30	.11	1000	.08
LED103	ROUND	BLUE	DIFFUSED	5mm	1.2	2.5	50	2.49	500	2.15
LED104	ROUND	GREEN	DIFFUSED	5mm	5	32	25	.11	1000	.08
LED105	ROUND	RED	DIFFUSED	5mm	20	80	30	.11	1000	.08
LED106	ROUND	YELLOW	DIFFUSED	5mm	5	32	30	.11	1000	.08
LED107	ROUND	GREEN	DIFFUSED	10mm	20	70	25	.39	200	.27
LED108	ROUND	RED	DIFFUSED	10mm	20	100	30	.29	200	.20
LED109	ROUND	YELLOW	DIFFUSED	10mm	20	70	30	.39	200	.27
LED120	ROUND	GREEN	TRANSPARENT	3mm	20	80	25	.15	500	.12
LED121	ROUND	RED	TRANSPARENT	3mm	32	125	30	.15	500	.12
LED122	ROUND	YELLOW	TRANSPARENT	3mm	10	50	30	.15	500	.12
LED123	ROUND	BLUE	TRANSPARENT	5mm	3	5	50	2.49	500	2.15
LED124	ROUND	GREEN	TRANSPARENT	5mm	20	80	25	.19	500	.15
LED125	ROUND	RED	TRANSPARENT	5mm	50	200	30	.19	500	.15
LED126	ROUND	YELLOW	TRANSPARENT	5mm	20	80	30	.19	500	.15
LED150	SUPER BRIGHT	GREEN	WATER CLEAR	3mm	100	300	25	.25	500	.20
LED151	SUPER BRIGHT	RED	WATER CLEAR	3mm	360	500	30	.25	500	.20
LED152	SUPER BRIGHT	RED	WATER CLEAR	3mm	1200	1400	30	.39	500	.31
LED153	SUPER BRIGHT	GREEN	WATER CLEAR	5mm	100	300	25	.25	500	.20
LED154	SUPER BRIGHT	RED	WATER CLEAR	5mm	2000	3500	30	.39	500	.31
LED155	SUPER BRIGHT	RED	WATER CLEAR	5mm	500	1000	30	.25	500	.20
LED160	RIGHT ANGLE	GREEN	DIFFUSED	5mm	5	32	25	.45	500	.22
LED161	RIGHT ANGLE	RED	DIFFUSED	5mm	20	80	30	.39	500	.22
LED162	RIGHT ANGLE	YELLOW	DIFFUSED	5mm	5	32	30	.45	500	.22
LED163	RIGHT ANGLE	GREEN	TRANSPARENT	5mm	5	32	25	.45	1000	.31
LED165	RIGHT ANGLE	YELLOW	TRANSPARENT	5mm	5	32	30	.45	1000	.31
LED170	IR	IR	TRANSPARENT	3mm	3.6mW/sr (TYP)		50	.29	500	.22
LED171	IR	IR	TRANSPARENT	3mm	7.0mW/sr (TYP)		50	.39	500	.31
LED172	IR	IR	TRANSPARENT	5mm	7.2mW/sr (TYP)		50	.29	500	.22
LED173	IR	IR	TRANSPARENT	5mm	1.0mW/sr (TYP)		50	.39	1000	.31
LED175	BI-POLAR 2P	RED/GRN	DIFFUSED	5mm	20/12	50/40	25/30	.29	500	.20
LED176	BI-POLAR 3P	RED/GRN	DIFFUSED	5mm	20/20	90/70	25/30	.29	500	.20
LED177	FULL COLOR	RED/GRN/BLUE	DIFFUSED	5mm	20/10/5	90/70/25	25/30	4.99	-	-
LED178	FULL COLOR	RED/GRN/BLUE	WATER CLEAR	10mm	80/100/40	200/200/120	25/30	9.99	-	-
LED180	FLASHING	GREEN	DIFFUSED	5mm	20	80	38-56	.59	500	.49
LED181	FLASHING	RED	DIFFUSED	5mm	5	32	38-56	.49	500	.39
LED182	FLASHING	YELLOW	DIFFUSED	5mm	5	32	38-56	.59	500	.43
LED183	FLASHING	RED	DIFFUSED	10mm	20	100	38-56	1.29	200	.99
LED190	RECTANGULAR	GREEN	DIFFUSED	2X5	2	8	25	.19	1000	.13
LED191	RECTANGULAR	RED	DIFFUSED	2X5	3.2	12.5	30	.19	1000	.13
LED192	RECTANGULAR	YELLOW	DIFFUSED	2X5	2	8	30	.19	1000	.13
LED200	BAR GRAPH	GREEN	DIFFUSED	DIP	2200ucd	5600ucd	25	1.49	19	1.29
LED201	BAR GRAPH	RED	DIFFUSED	DIP	2200ucd	5600ucd	30	1.39	19	1.19
LED202	BAR GRAPH	RED/GRN	DIFFUSED	DIP	900ucd	2200ucd	25/30	1.59	19	1.35
LED203	BAR GRAPH	YELLOW	DIFFUSED	DIP	2200ucd	5600ucd	30	1.49	19	1.29
PX3	PHOTO XISTOR	N/A	WATER CLEAR	3mm	NA	NA	N/A	.29	500	.22
PX5	PHOTO XISTOR	N/A	WATER CLEAR	5mm	NA	NA	N/A	.29	500	.22
LED-MHW	Mounting Hardware for 5mm LEDs							.11	1000	.08

ucd = MICROCANDELA, mcd = MILLICANDELA, mW/sr = MILLIWATTS PER STERADIAN

Super-Bright White LED

This new multichromatic LED emits pure white light with high luminous intensity. It can also be filtered to produce any visible color.



LED149 Super bright white LED, 3mm, 1 lb\$7.99

LED148 Super bright white LED, 5mm\$7.99

7-Segment Displays



One, two, three and four digit displays available in red. Choose from common cathode, common anode, and left and right hand decimal point configurations.

Part #	Character Size	Ea.	Qty	Price
LED300	3" Red common anode, Left OP (MAN72)	.99	25	.79
LED301	3" Red common cathode (MAN74) right DP	.99	25	.79
LED304	3" Green common cathode (MAN54) right DP	1.69	25	1.40
LED310	.375" Red common cathode (FND357)	1.09	35	.86
LED320	5" Red alphanumeric common cathode	1.99	20	1.49
LED321	5" Red alphanumeric common anode	1.99	20	1.49
LED322	5" Red Common cathode (FND500) right DP	1.09	39	.86
LED323	5" Red common anode (FND507) right DP	1.99	20	1.49
LED340	.56" Red 2 digit com. anode (MAN6710) right OP	1.69	20	1.40
LED341	.56" Red 2 digit common cathode (MAN6740)	1.69	20	1.40
LED345	.56" Red 3 digit com. anode	2.39	13	1.99
LED346	.56" Red 3 digit common cathode	2.39	13	1.99
LED347	.56" Red 4 digit common anode	2.99	10	2.49
LED348	.56" Red 4 digit common cathode	2.99	10	2.49
LED360	1" Red common anode	1.99	10	1.49
LED361	1" Red common cathode	1.99	10	1.49
TIL-311	3 Red 4 x 7" alphanumeric right/left DP	9.99	25	7.95

* With hexadecimal counter, latch decoder driver logic built in

Serial LCD Modules

By integrating an RS-232 interface onto an LCD a display, the Serial Backpack speeds up project design.

- Power requirements: 5VDC @ 500 microamps
- RS-232 interface (2400 or 9600 baud)
- Instruction book includes programming examples for Basic Stamp and all other prototyping modules
- 4x40 model includes text-wrap, big characters and more



Part #	Description	Area	Size	Price
BPK-RS232	Serial Backpack only (LCD not included)	NA	NA	28.99
BPK-216N	Serial Backpack w/2 x 16 char LCD	5" x 2.5"	.19"	59.99
BPK-216L	Serial Backpack w/2 x 16 char backlit LCD	5" x 2.5"	.19"	64.99
BPK-420L	Serial Backpack w/4 x 20 char backlit LCD	1" x 3"	.19"	119.99
BPP-440L	Serial Backpack w/4 x 40 char backlit LCD	1" x 6"	.19"/1"	199.99

200mV LCD Display

This low-cost display is ideal for projects that require a reliable voltage display. Add your own resistor divider network for greater voltage ranges.



- 3-1/2 digit .5" LCD display
- +/- 200mv maximum input
- 100Mohm input impedance
- Requires 9-12VDC power supply

PM-128 1 lb\$12.99



20-Drawer Parts Cabinet

Tired of hunting through a mound of parts to find the right value? Store your capacitors, resistors, ICs and other components in these drawers!



- Organizes your parts for quicker retrieval
- 20-drawer cabinet includes 20 dividers
- Each drawer can be divided into 4 sections
- Inside drawer size: 1-1/2"H x 2-1/2"W x 5-1/4"D

CABINET20 15"L x 6"W x 7-3/4"H, 5 lbs\$14.99
DIVIDER 10 additional dividers, 1 lb\$1.99



Miniature Parts Boxes

Semi-translucent nylon boxes with hinged top.

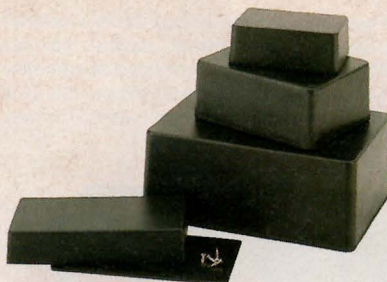
- Ideal for small devices such as DIP ICs
- Available in 6 and 10-compartment configurations



BOX6 1 lb\$1.75
6 compartments; 1-3/8"L x 1-1/4"W x 1.0"H
BOX10 1 lb\$1.99
8 compartments; 15/16"L x 1-3/8"W x 15/16"H
2 compartments; 7/8"L x 2-3/4"W x 15/16"H

Plastic Boxes

These sturdy boxes are made of molded ABS plastic in a glossy black finish. They have slotted walls to accept PCBs. Screws to attach the lid are supplied. Choose from four sizes.

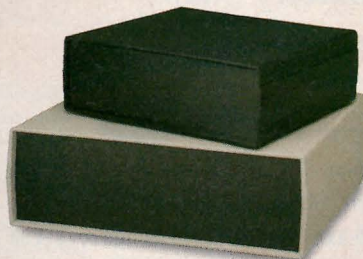


GPB321 3.0"L x 2.0"W x 1.0"H, 1 lb\$2.29
GPB420 4.4"L x 2.2"W x 0.8"H, 1 lb\$2.49
GPB431 4.0"L x 3.0"W x 1.6"H, 2 lbs\$2.99
GPB324 5.75"L x 3.78"W x 2.3"H, 2 lbs\$3.49



Instrument Cases

These durable ABS plastic cases are very easy to work with, thanks to a split design. Case top and bottom are black. Adhesive feet and screws are included. Choose from two sizes; GPB100 has ventilation slots and a speaker recess.



GPB862 8.0"L x 6.4"W x 2.5"H, 2 lbs\$6.49
GPB100 10.0"L x 7.6"W x 3.1"H, 3 lbs\$8.49



Die-Cast Aluminum Enclosures

These heavy-duty enclosures are made of high quality die-cast aluminum and have channelled walls for easy PCB mounting. These enclosures will act as an excellent heat sink. Easy assembly; screws included.



3125A 3.9"L x 2.0"W x 1.0"H, 1 lb\$3.99
3125B 4.7"L x 2.4"W x 1.6"H, 1 lb\$6.99
3125C 7.5"L x 4.3"W x 2.4"H, 2 lbs\$8.99

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Rack Mount Enclosures

These high-quality rack mount enclosures come in an attractive charcoal gray epoxy finish. The top, bottom and sides have ventilation holes to assist in cooling. The front and back panels are made of 0.059" thick aluminum for easy custom design. The top, bottom and sides are 0.035" steel. Choose from six sizes--all include handles except 3120A.



3120A 7 lbs\$39.99
16.7"L x 10.0"W x 1.5"H case with 19"L x 1.69"H front panel
3120B 8 lbs\$45.99
16.7"L x 9.58"W x 3.2"H case with 19"L x 3.44"H front panel
3120C 9 lbs\$54.99
16.7"L x 13.1"W x 3.2"H case with 19"L x 3.44"H front panel
3120D 12 lbs\$59.99
16.7"L x 13.1"W x 5.0"H case with 19"L x 5.21"H front panel
3120E 14 lbs\$64.99
16.7"L x 16.7"W x 5.0"H case with 19"L x 5.21"H front panel
3120H 18 lbs\$84.99
16.7"L x 16.7"W x 8.5"H case with 19"L x 8.69"H front panel



Aavid Heat Sinks

TO-220 slimmest plug-in; tins form four spring action clips.

HS576802B 0.5"L x 0.75"W x 0.5"H\$75

TO-220 low-cost low-profile cooler for plastic power SCRs or transistors

HS507302B 0.75"L x 0.75"W x 0.375"H\$24

TO-220 vertically mounted, low-cost cooler, with mounting tabs designed for either twisting or soldering

HS575002B 1.0"L x 1.18"W x 0.5"H\$49

TO-220 10W natural convection power dissipation. Notched so circuit traces can go under device without risk of shorting.

HS513002B 1.38"L x 1.0"W x 0.5"H\$139

TO-3 for tight space requirements

HS501303B 1.88"L x 1.4"W x 0.5"H\$89



Heat Sink Compound

Apply this silicone-free compound between heat sinks & the devices they are cooling for more effective heat transfer. This compound won't harden, dry out, melt or contaminate wave solder baths. Shipping weight 1 lb.



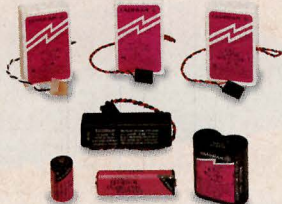
1978DP 2 oz. tube of heat sink compound, 1 lb\$7.99



Batteries and Accessories

Tadiran Lithium Replacement Batteries

There's nothing worse than having your battery fail in the middle of an important project! These lithium batteries have a long life, but ultimately, they too wear out, so purchase a spare as "insurance". We carry a wide selection to meet most computer needs; see chart below. Sh. wt. 1 lb.



Part #	Tadiran #	Replaces	Price
LITHIUM-6V	TL-5293W	Most 286 and 386's	10.99
LITHIUM-6.8V	TL-5253C	Most 286 and 386's	12.99
LITHIUM-7.2V	TL-5280W	Most 286 and 386's	14.99
LITHIUM-2	TL-5311	PS/2 50, 60, 70, 80, and more	12.99
LITHIUM-LT	TL-5104S	Toshiba T1100, T200, Zenith, old Compac	10.99
LITHIUM-3.6V	TL-5242W	Toshiba T3100, T3200, T5200, Compag port. 286/386	9.99
LITHIUM-1/2AA	TL-2150	Mac SE, IIE	4.99

3V Lithium Batteries

Coin-type 3 volt lithium batteries for use in motherboards and interface cards.

LITHIUM-3V .906" dia, 1 lb.....\$1.99
CR2032 .787" dia, 1 lb.....\$1.49

Battery Socket

Designed for .906" diameter coin-type batteries, such as our LITHIUM-3V sold above.

3V-MHW 1 lb.....\$1.49

Rechargeable NiCad Batteries

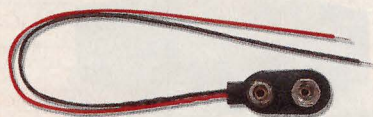
Rechargeable power cells provide a renewable, rechargeable power source, so you don't have to continually dispose of batteries and pollute the environment! When charged with the unit below, they can be replenished in just 3 hours!



Part #	Battery Type	Sh. Wt.	Each	Bulk Qty	Price
NBAAA	AAA	1 lb	1.99	10	1.55
NBAA	AA	1 lb	1.99	10	1.55
NBC	C	1 lb	3.99	10	2.99
NBD	D	1 lb	3.99	10	2.99
NBSV	9V	1 lb	7.49	10	6.11

WY-108 2 lbs.....\$14.99
4-cell battery charger - will charge all types above

9V Battery Snap



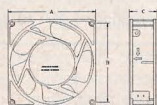
- Snap-on clip for standard 9V type battery
- 4 inch color-coded leads

9V-SNAP-XXX 1 lb10 pcs \$1.99 100 pcs \$14.80

To order, replace xx in part number with quantity

Sunon Fans

Quiet, reliable muffin fans with longlife ball bearings for reliability.



Part #	A	B	C	CFM*	Volt	Each	Bulk Qty	Price
MF80-PS*	3.15"	2.81"	1.0"	28	12VDC	12.99	25	9.99
MF80X25-12	3.15"	2.81"	1.0"	35	12VDC	10.99	25	9.99
MF80X25-115	3.15"	2.81"	1.0"	22	115VAC	10.99	25	9.99
MF80X38-115	3.15"	2.81"	1.5"	31	115VAC	10.99	25	9.99
MF120X25-12	4.72"	4.13"	1.0"	80	12VDC	10.99	25	9.99
MF120X25-115	4.72"	4.13"	1.0"	54	115VAC	11.99	25	10.99
MF120X38-115	4.72"	4.13"	1.5"	117	115VAC	11.99	25	10.99

*With connector for power supplies

Fan Accessories

Part #	Fan Accessory	Each	Bulk Qty	Price
MF-CORD	24" power cord for fans	1.29	50	.88
MF-GUARD-P80	Plastic finger guard w/mesh, 3"	2.99	50	.87
MF-GUARD-M80	Metal finger guard, 3"	1.19	50	.87
MF-GUARD-P120	Plastic finger guard w/mesh, 4.55"	1.89	50	1.41
MF-GUARD-M120	Metal finger guard, 4.55"	1.89	50	1.41

Rotron Fans

This cooling fan runs off of 115VAC power and moves 34 cubic feet of air per minute.



Part #	A	B	C	CFM*	Volt	Each	Bulk Qty	Price
MUFFIN-ROTRON	3.15"	2.81"	1.5"	34	115VAC	7.99	25	6.20

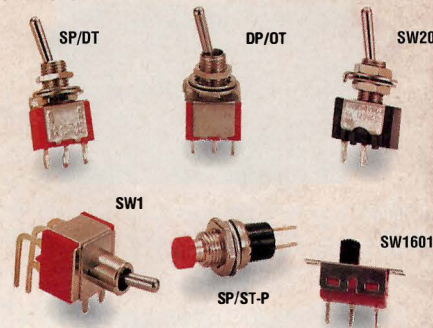
* Cubic Feet per Minute

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Switches

Miniature Switches

Low-power mini switches are ideal for digital circuits. All switches include panel mounting hardware.



Part #	Description	Each	Bulk Qty	Price
SP/DT	Mini-toggle on-on	1.25	100	.92
DP/OT	Mini-toggle on-on	1.29	50	.92
SW-DPDT-CO	Mini-toggle on-off-on	1.29	100	.92
SP/ST-P	Mini push button-open, red button	.39	200	.28
SW-SPST-NC	Mini push button-closed, black button	.39	100	.28
SW1	PCB* mini-toggle DPOT on-on	1.25	50	.92
SW1A	PCB* mini-toggle DPOT on-off-on	1.39	50	1.01
SW2	PCB* mini-toggle SPOT on-on	1.39	50	1.01
SW2A	PCB* mini-toggle SPOT on-off-on	1.49	50	1.13
SW20	Mini-toggle SPST on-off	1.25	20	.92
SW22	Mini-toggle SPOT on-off-on	1.29	50	.92
SW31	Mini-toggle 3PDT on-on	2.25	10	1.73
SW32	Mini-toggle 3POT on-off-on	2.35	10	1.73
SW36	Mini-toggle 4PDT on-on	2.35	10	1.73
SW37	Mini-toggle 4POT on-off-on	2.45	10	1.73
SW1601	Slide SPOT on-on 0.77" L x 0.24" W	1.19	100	.88
SW1604	Slide DPOT on-on 0.77" L x 0.45" W	1.69	50	1.24

*Right angle PCB mount style

DIP Switches

These switches can be used to set up & program your digital circuits. They all have SPST circuitry and mount in standard 0.3" DIP sockets.



Part #	Fits	Each	Bulk Qty	Price
4 POSITION	8-pin DIP sockets	.79	50	.58
5 POSITION	10-pin DIP sockets	.79	18	.58
6 POSITION	12-pin DIP sockets	.79	32	.58
7 POSITION	14-pin DIP sockets	.89	13	.67
8 POSITION	16-pin DIP sockets	.89	25	.67
10 POSITION	20-pin DIP sockets	.99	9	.75
12 POSITION	24-pin DIP sockets	1.29	16	.92

Keylock Switches

Flat Style

Zinc alloy housing and cylinder, silver-plated contacts and terminals. Double-bitted key. 6A @ 125VAC. 1.55" long, 0.75" mounting hole. Solder eyelets.

KEYSW260 1 lb\$4.99

Tubular Style

Chrome-plated brass housing and cylinder, silver-plated contacts and terminals. Key removable from 2 positions. 6A @ 125VAC. 1.46" long, 0.78" mounting hole.

KEYSW51 1 lb\$4.99

3.15" Cooling Fan

This useful fan's quiet, brushless motor moves air at 30 CFM. It comes with solderless-type lug connectors. Attach to solderless-type spade connectors.



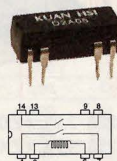
- Brushless design 30 CFM max air flow
- 12VDC @ 0.1A
- Power leads have lug connectors
- 3.15" x 3.15" x 1"

Special Buy!

FBA08A12L 1 lb\$4.99

DIP Reed Relays

These printed circuit board relays are ideal for low-power applications. Use to drive high-power relays or switch low-power signals. Fits in standard 14-pin DIP sockets.



Part #	Voltage	Current	Contacts	Price
RELAY-DIP	5VDC	500mA	DPST	3.99
RELAY-DIP12	12VDC	500mA	DPST	3.99
DS2EML2DC5V	5VDC	2A	DPOT*	4.99
DS4EML2DC5V	5VDC	2A	4POT*	8.99

*Latched

Shipping weight 1 lb

Sockets

Soldertail

Economical general purpose sockets. Dual wipe contacts provide greater contact surface.



Part #	Pins	Width	Each	Bulk	
				Qty	Price
6 PIN ST	6	.3"	.09	70	.05
8 PIN ST	8	.3"	.09	60	.05
14 PIN ST	14	.3"	.09	34	.05
16 PIN ST	16	.3"	.12	30	.07
18 PIN ST	18	.3"	.15	27	.09
20 PIN ST	20	.3"	.15	24	.09
22STSK	22	.3"	.19	18	.11
24 PIN ST	24	.6"	.18	20	.11
24STSK	24	.3"	.39	20	.23
28 PIN ST	28	.6"	.22	17	.13
28STSK	28	.3"	.49	17	.29
32 PIN ST	32	.6"	.23	15	.13
40 PIN ST	40	.6"	.23	12	.14
64 PIN ST	64	.8"	1.19	6	.72



Wire-Wrap 3-level

Three level pins allow multiple connections per pin.

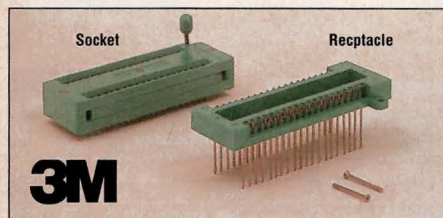


Part #	Pins	Width	Each	Bulk	
				Qty	Price
8 PIN WW	8	.3"	.59	52	.41
14 PIN WW	14	.3"	.69	28	.55
16 PIN WW	16	.3"	.79	24	.54
18 PIN WW	18	.3"	.99	21	.68
20 PIN WW	20	.3"	1.09	19	.82
24 PIN WW	24	.6"	1.29	16	.89
24WWSK	24	.3"	1.49	20	1.02
28 PIN WW	28	.6"	1.49	13	1.02
40 PIN WW	40	.6"	1.69	9	1.16



Textool ZIF Sockets and Receptacles

Excellent for test or programming applications, these zero insertion force (ZIF) sockets are ideal for multiple insertions/extractions. Both the sockets and receptacles available in 14 to 40-pin configurations.



Wire-Wrap Receptacles:

Part #	Pins	Each	Bulk	
			Qty	Price
ZIF-14R	14	11.99	10	9.56
ZIF-16R	16	11.99	10	9.56
ZIF-18R	18	12.49	10	9.97
ZIF-20R	20	12.99	10	10.36
ZIF-24R	24	12.99	10	10.36
ZIF-28R	28	14.99	10	11.96
ZIF-40R	40	17.99	5	14.36

ZIF Sockets:

Part #	Pins	Each	Bulk	
			Qty	Price
ZIF-14	14	7.99	10	6.36
ZIF-16	16	9.99	10	7.86
ZIF-18	18	9.99	10	7.96
ZIF-20	20	10.99	10	8.76
ZIF-24	24	11.99	10	9.56
ZIF-28	28	12.99	10	10.36
ZIF-40	40	16.99	10	13.56

Hi-Reliability Soldertail

Machined-contact sockets provide lower contact resistance to prevent "IC walkout". Soldertail pins with tin plating and gold inlay.

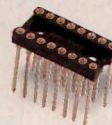


Part #	Pins	Width	Each	Bulk	
				Qty	Price
AUGAT06	6	.3"	.45	80	.36
AUGAT08	8	.3"	.49	60	.39
AUGAT14	14	.3"	.59	34	.47
AUGAT16	16	.3"	.65	30	.52
AUGAT18	18	.3"	.69	26	.55
AUGAT20	20	.3"	.79	24	.63
AUGAT22SK	22	.3"	.79	22	.63
AUGAT24	24	.6"	.85	17	.68
AUGAT24SK	24	.3"	.89	20	.71
AUGAT28	28	.6"	.99	17	.79
AUGAT28SK	28	.3"	1.29	14	1.03
AUGAT32	32	.6"	1.19	15	.99
AUGAT40	40	.6"	1.19	12	.99
AUGAT48	48	.6"	1.29	8	1.03



Machined Pin Hi-Reliability Wire-Wrap

Machined-contact sockets provide lower contact resistance to prevent "IC walkout". 3-level wirewrap pins with tin plating and gold inlay.



Part #	Pins	Width	Each	Bulk	
				Qty	Price
AUGAT08WW	8	.3"	.69	60	.55
AUGAT14WW	14	.3"	.99	34	.79
AUGAT16WW	16	.3"	1.09	30	.87
AUGAT18WW	18	.3"	1.29	26	1.03
AUGAT20WW	20	.3"	1.39	24	1.12
AUGAT22WWSK	22	.3"	1.89	25	1.39
AUGAT24WW	24	.6"	1.89	20	1.51
AUGAT24WWSK	24	.3"	1.99	20	1.59
AUGAT28WW	28	.6"	1.99	17	1.59
AUGAT28WWSK	28	.3"	2.29	22	1.79
AUGAT32WW	32	.6"	2.19	15	1.75
AUGAT40WW	40	.6"	2.59	12	2.07



Low-Cost Aries ZIF Sockets

These low-cost Zero Insertion Force (ZIF) sockets are ideal for multiple insertion/extraction applications. Standard size pins fit in common solder and breadboard holes. Shipping weight 1 lb.



ARIES
ELECTRONICS, INC.

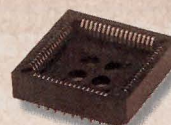
Part #	Description	Each	Bulk	
			Qty	Price
24-6554-10	24-pin ZIF socket	5.99	10	4.99
28-6554-10	28-pin ZIF socket	6.99	9	5.99
32-6554-10	32-pin ZIF socket	7.99	8	6.99
40-6554-10	40-pin ZIF socket	8.79	7	7.39
48-6554-10	48-pin ZIF socket	10.99	6	9.39

Accepts 0.3" mil to 0.6" mil wide packages

Fax Toll Free!
1-800-538-5005

PLCC Sockets

Mount these state-of-the-art plastic-leaded chip carriers and take advantage of PLCC chip designs.

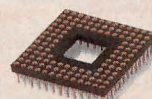


Part #	Pins	Each	Bulk	
			Qty	Price
PLCC20	20	1.09	100	.65
PLCC28	28	1.09	56	.65
PLCC32	32	1.19	56	.79
PLCC44	44	1.49	42	.97
PLCC52	52	1.59	100	1.11
PLCC68	68	1.69	30	1.18
PLCC84	84	1.89	30	1.32



Pin Grid Array Sockets

These PGA sockets are available in soldertail style and will accommodate standard pin grid devices such as the 168-pin 80486 microprocessor.



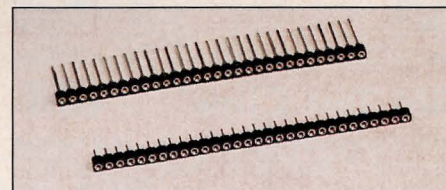
Part #	Pins	Grid	Each	Bulk	
				Qty	Price
PGA68-10X10	68	10 x 10	2.19	20	1.53
PGA68	68	11 x 11	2.19	19	1.53
PGA84	84	11 x 11	3.39	18	2.37
PGA132	132	14 x 14	3.89	15	2.72
PGA168	168	17 x 17	4.89	13	3.42



In-Line Sockets

SIP Sockets

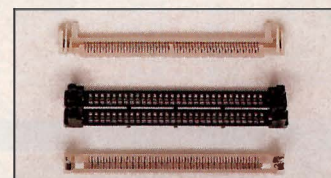
Use these sockets to connect memory devices to your printed circuit boards. They are tin-plated for high reliability. Available in soldertail or wire-wrap styles for JEDEC standard 30-pin modules.



Part #	Description	Each	Bulk	
			Qty	Price
SIP-SOCKET	Solder tail SIP socket	.89	100	.49
SIP-SOCKET-WW	Wire-wrap SIP socket	2.69	100	1.69

SIMM Sockets

Use these sockets with SIMM packages. They are tin-plated and include plastic polarity pins for reliability. Metal locking tabs insure secure insertion and easy extraction. Available for 30 and 72-pin modules.



Part #	Description	Each	Bulk	
			Qty	Price
SIMM-SOCKET	Single SIMM socket	.99	80	.79
SIMM-SOCKET-2	Dual SIMM socket	1.29	40	1.03
SIMM-SOCKET-A	Single angled SIMM socket	1.29	20	1.03
SIMM72	72-pin SIMM socket	1.99	100	1.56
SIMM72D	72-pin dual-style SIMM socket	3.99	32	3.16
SIMM72A	72-pin angled-style socket	2.49	80	1.99

IC Extraction Tools

PLCC Extractor

This spring-assisted chip extraction tool is specially designed for safely removing PLCC's from sockets without damaging the components. These hardened steel tongs, when inserted at the socket corners, lift the chip with a simple squeeze!



EXT-PLCC 1 lb\$13.99

IC Extractor

The IC-EXT extractor is ideally suited for the hobbyist and lab engineer alike. It extracts all DIP IC devices from 8 to 28 pins. One-piece spring steel construction.



IC-EXT Sh. wt. 1 lb\$1.49

Component Carriers

Create hybrid modules by soldering components to a DIP carrier. Change a circuit's characteristics by simply plugging a new carrier in a DIP socket! 0.1" centers. Shipping weight 1 lb.

Part #	Contacts	Width	Each	Qty	Price
ICC08	8	.3"	.69	250	.58
ICC14	14	.3"	.79	25	.67
ICC16	16	.3"	.89	20	.75
ICC18	18	.3"	1.39	17	1.20
ICC20	20	.3"	.99	15	.84
ICC24	24	.6"	1.49	20	1.25
ICC28	28	.6"	1.99	13	1.65
ICC28SK	28	.3"	2.69	200	2.31
ICC40	40	.6"	2.99	10	2.50

3M Test Clips

3M

Use these patented test clips for troubleshooting or development work. Rugged thermoplastic body with positive clamping action to eliminate intermittent connections. Shipping weight 1 lb.



DIP					
Part #	# Pins	Price	Part #	# Pins	Price
TC-08	8	7.99	TC-24	24	12.49
TC-14	14	8.49	TC-24SK	24/ 3"	18.99
TC-16	16	5.99	TC-28	28	12.99
TC-18	18	8.49	TC-28SK	28/ 3"	18.99
TC-20	20	8.75	TC-32	32	16.99
TC-22	22	11.75	TC-40	40	17.99
			TC-48	48	24.99

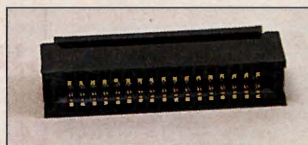
SOJ/SOIC					
Part #	# Pins	Price	Part #	# Pins	Price
SOIC8	8	7.75	SOIC16	16	8.99
SOIC14	14	8.75	SOIC28	28	14.99

PLCC					
Part #	# Pins	Price	Part #	# Pins	Price
PLCC28TC	28	24.99	PLCC68TC	68	35.99
PLCC44TC	44	31.99	PLCC84TC	84	39.99

IDC Connectors

IDE Card Edge

Create custom cables by crimping your cable directly to these IDE card edge connectors. Or add connectors to an existing cable. 0.1" centers. Shipping weight 1 lb.



Part #	Contacts	Each	Bulk	
			Qty	Price
IDE10	10	.55	100	.44
IDE20	20	.55	50	.44
IDE26	26	.75	40	.60
IDE34	34	.79	50	.63
IDE40	40	1.09	80	.87
IDE50	50	1.19	30	.99

DIP Plugs

Crimp these DIP plugs to your ribbon cable to extend a device's signals. Ideal for test applications. Fits in standard 300 mil and 600 mil IC sockets. 0.1" centers. Shipping weight 1 lb.



Part #	Contacts	Size	Each	Bulk	
				Qty	Price
IDP08	8	.3"	.49	140	.34
IDP14	14	.3"	.55	100	.38
IDP16	16	.3"	.59	120	.38
IDP18	18	.3"	.69	100	.46
IDP20	20	.3"	.79	70	.52
IDP24	24	.6"	.85	70	.56
IDP28	28	.6"	.99	60	.65
IDP40	40	.6"	1.19	40	.82

Centronics Connectors



For use with parallel printer and SCSI cables. Available in solder-cup, ribbon cable crimp and right-angle PC mount styles. Shipping weight 1 lb.

Part #	Description	Each	Bulk	
			Qty	Price
CEN36	36-pin Solder cup - Male	1.85	50	1.20
CEN36/F	36-pin Solder cup - Female	2.85	50	2.28
CEN36PC	36-pin Right-angle PC - Female	2.85	50	2.28
CEN50	50-pin Solder cup - Male	2.99	25	2.36
CEN50/F	50-pin Solder cup - Female	3.99	100	3.16
HCEN50P	50-pin High-Density Solder - Male	6.99	100	5.20
IDCEN36	36-pin Ribbon cable - Male	2.99	30	2.36
IDCEN36/F	36-pin Ribbon cable - Female	3.49	30	2.59
IDCEN50	50-pin Ribbon cable - Male	3.99	50	3.16
IDCEN50/F	50-pin Ribbon cable - Female	4.49	50	3.35

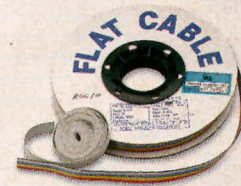
Ribbon Cable

Monochrome Ribbon Cable

Part #	AWG	# Cond	10' spool	100' spool
RC10-xxx	28	10	1.50	10.00
RC16-xxx	28	16	1.80	12.80
RC20-xxx	28	20	2.10	16.00
RC25-xxx	28	25	3.20	20.00
RC26-xxx	28	26	3.40	20.80
RC34-xxx	28	34	4.20	27.20
RC40-xxx	28	40	5.10	32.00
RC50-xxx	28	50	6.80	40.00

Color Coded Ribbon Cable

Part #	AWG	# Cond	10' spool	100' spool
RCC10-xxx	28	10	2.00	17.60
RCC16-xxx	28	16	3.20	24.00
RCC20-xxx	28	20	4.00	30.40
RCC25-xxx	28	25	5.00	36.80
RCC26-xxx	28	26	5.20	40.00
RCC34-xxx	28	34	6.80	51.20
RCC40-xxx	28	40	8.00	67.20
RCC50-xxx	28	50	10.00	73.60



Half Pitch Ribbon Cable

Part #	Cond	10' spool	100' spool
RC-HP50-xxx	50	19.99	149.99
RC-HP68-xxx	68	24.99	199.99

IDS Sockets

Our IDS sockets feature plated contact pins for reliable connections. Just crimp them to your cable. 0.1" centers. Shipping weight 1 lb.



Part #	Contacts	Size	Each	Bulk	
				Qty	Price
IDS10	10	2x5	.45	180	.27
IDS16	16	2x8	.49	132	.40
IDS20	20	2x10	.55	84	.45
IDS26	26	2x13	.59	84	.49
IDS34	34	2x17	.69	60	.65
IDS40	40	2x20	.89	60	.85
IDS50	50	2x25	.99	48	.99
IDS60	60	2x30	1.49	150	1.39

Male Ribbon Cable Header

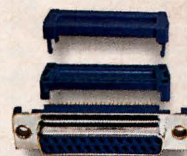
Ideal for creating ribbon cable extensions. Two rows of pins on 0.1" centers crimp to ribbon cable. Shipping weight 1 lb.



Part #	Contacts	Size	Each	Bulk	
				Qty	Price
IDM20	20	2 x 10	1.69	70	1.26
IDM26	26	2 x 13	2.19	60	1.99
IDM34	34	2 x 17	2.39	50	1.91
IDM40	40	2 x 20	2.69	40	2.15
IDM50	50	2 x 25	3.29	30	2.63

www.jdr.com

IDC DSUB Connectors



Insulation displacement type for all your standard flat cable applications. Shipping weight 1 lb.

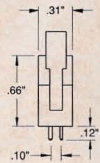
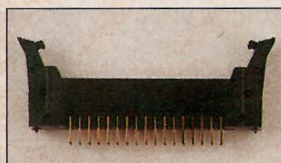
Part #	# Pins	Type	Each	Bulk	
				Qty	Price
IDB09P	9	Male	1.09	100	.87
IDB09S	9	Female	1.09	100	.87
IDB15P	15	Male	1.39	50	1.12
IDB15S	15	Female	1.39	50	1.12
IDB25P	25	Male	1.39	50	1.05
IDB25S	25	Female	1.39	50	1.05
IDB37P	37	Male	2.49	40	1.90
IDB37S	37	Female	2.49	40	1.90

Headers

- These dependable, quality-built headers make prototyping easier
- Choose solder or wire-wrap headers in both regular and right-angle configurations

Solder

Solder directly into PC boards. Two rows of pins on 0.1" centers. Shipping weight 1 lb.

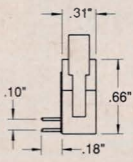
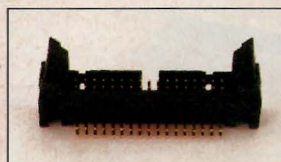


Part #	# Pins	Size	Each	Bulk	
				Qty	Price
IDH10S	10	2 x 5	.75	156	.45
IDH20S	20	2 x 10	.99	108	.59
IDH26S	26	2 x 13	1.39	96	.83
IDH34S	34	2 x 17	1.59	100	.99
IDH40S	40	2 x 20	1.89	72	1.13
IDH50S	50	2 x 25	2.19	60	1.31



Right-Angle Solder

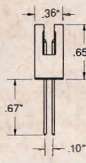
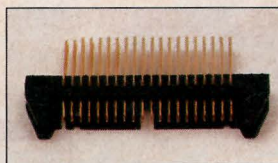
As above with right-angle connector for low-profile circuit boards. Ideal for stacked board configurations. Shipping weight 1 lb.



Part #	# Pins	Size	Each	Bulk	
				Qty	Price
IDH10SR	10	2 x 5	.75	200	.45
IDH20SR	20	2 x 10	1.19	50	.71
IDH26SR	26	2 x 13	1.39	50	.83
IDH34SR	34	2 x 17	1.59	50	.99
IDH40SR	40	2 x 20	1.69	50	1.01
IDH50SR	50	2 x 25	1.89	50	1.13

Wire-Wrap

Two rows of pins on 0.1" centers with 3-level wire-wrap pins. For wire-wrapped boards and prototyping. Shipping weight 1 lb.

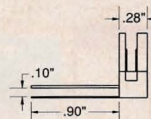
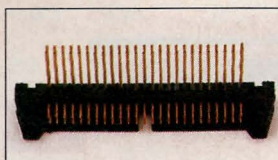


Part #	# Pins	Size	Each	Bulk	
				Qty	Price
IDH10W	10	2 x 5	1.49	100	.89
IDH20W	20	2 x 10	2.19	50	1.31
IDH26W	26	2 x 13	2.69	50	1.61
IDH34W	34	2 x 17	3.59	50	2.15
IDH40W	40	2 x 20	3.99	50	2.40
IDH50W	50	2 x 25	4.99	30	2.97



Right-Angle Wire-Wrap

As above with right-angle connector for low-profile circuit boards. Shipping weight 1 lb.

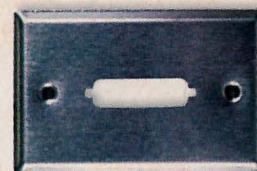


Part #	# Pins	Size	Each	Bulk	
				Qty	Price
IDH10WR	10	2 x 5	1.59	75	.99
IDH20WR	20	2 x 10	2.29	50	1.37
IDH26WR	26	2 x 13	2.89	50	1.73
IDH34WR	34	2 x 17	3.79	50	2.27
IDH40WR	40	2 x 20	3.99	50	2.40
IDH50WR	50	2 x 25	5.19	24	3.11

www.jdr.com

Wall Plates

Stainless steel wall plates for permanent wiring of serial or network applications with 2 screws. Available in single and double cutouts. Shipping weight 1 lb.



Part #	Description	Each	Bulk	
			Qty	Price
WP-DB1	Single, 25-pin D-SUB	1.99	100	1.25
WP-DB2	Double, 25-pin D-SUB	1.99	100	1.25
WP-9DB1	Single, 9-pin D-SUB	1.99	100	1.25
WP-CX1	Single, BNC coax	1.99	100	1.25
WP-CX2	Double, BNC coax	1.99	100	1.25
WP-TWNX1	Single, Twinax	1.99	100	1.25
WP-TWNX2	Double, Twinax	1.99	100	1.25

Centronics Solder Connectors

Centronics 36-pin connectors are commonly used in parallel printer applications while 50-pin connectors are used in SCSI applications. Solder cup connector with metal hood. Shipping weight 1 lb.



Part #	Description	Each	Bulk	
			Qty	Price
CEN36	36-pin - Male	1.85	50	1.20
CEN36F	36-pin - Female	2.85	50	2.28
CEN36PC	36-pin Right-angle PC - Female	2.85	50	2.28
CEN50	50-pin - Male	2.99	25	2.36
CEN50/F	50-pin - Female	3.99	50	3.16
HCEN50P	50-pin - High-Density - Male	6.99	100	5.20

Snappable Header Pins

- Gold-plated pins on 0.1" centers
- Choose straight or right-angle leads



Part #	Description	Sh. Wt.	Each	Qty	Price
HDR-40	1 x 40 straight leads	1 lb	.99	250	.41
HDR-40R	1 x 40 right-angle leads	1 lb	.89	250	.61
HDR-80	2 x 40 straight leads	1 lb	1.29	200	.89
HDR-80R	2 x 40 right-angle leads	1 lb	1.69	200	1.16



Jumper Blocks

These jumper blocks fit standard 0.1" and 0.08" header pins. The KT version features extended grips for easy grasp. Shipping weight 1 lb.

Part #	Pin Spacing	Height	Color	10	100	1k
JUMPER-KT-xxx	.1"/2.5mm	.54"/14mm	Black	\$2.49	\$16.99	\$129.99
JUMPER-K6-xxx	.1"/2.5mm	.25"/6mm	Black	\$1.99	\$16.99	\$149.99
JUMPER-B6-xxx	.1"/2.5mm	.25"/6mm	Blue	\$2.49	\$19.99	\$179.99
JUMPER-R6-xxx	.1"/2.5mm	.25"/6mm	Red	\$2.49	\$19.99	\$179.99
JUMPER-K4-xxx	.1"/2.5mm	.15"/4mm	Black	\$2.49	\$19.99	\$179.99
JUMPER-2M-xxx	.08"/2mm	.14"/3.5mm	Black	\$2.49	\$19.99	\$179.99

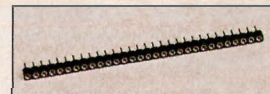
To order, replace xxx in part number with quantity (10, 100 or 1k)



Make Your Own High-Reliability IC Sockets and Save!

These high-reliability machined screw sockets come in strips of 30 pins. Cut them into smaller pieces and make your own IC sockets. For 20-pin DIP devices, cut off 2 strips of 10 pins. Gold plated gripping contacts ensures a gas tight connection.

LESS THAN
1.7¢/pin
QTY 100

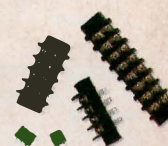


- 30-pin lengths with tinned leads, gold-plated contacts
- Machined screw type high reliability connections

Part #	Description	Sh. Wt.	Each	Qty	Price
SIP-SOCKET	Solder tail SIP socket	1 lb	.89	100	.49

Barrier Strips

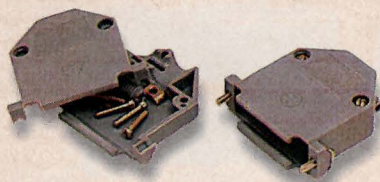
Barrier strips make interfacing wires with printed circuit cards easy and neat. These feature nickel-plated steel screws and tin plated brass terminals. The BST-T2 models can be dovetailed together to make any length strip.



BST-04	Dual-row 4-pole barrier strip, 1 lb	\$1.29
BST-08	Dual-row 8-pole barrier strip, 1 lb	\$2.99
BST-S4	Single-row solder-lug barrier strip, 4-pole, 1 lb	\$1.49
BST-T2	2-pole mini terminal strip, 1 lb	\$6.99
BST-T3	3-pole mini terminal strip, 1 lb	\$9.99

Hoods

- Included strain-reliefs reinforce your connections and keep them reliable
- Metal and metalized plastic cases provide shielding



Plastic Hoods

Part #	Contacts	Each	Qty	Price
HOOD09	9	.35	50	.22
HOOD15	15	.35	100	.25
HOOD25	25	.35	50	.25
HOOD25GC	25 Gender Changer Style	.99	50	.65
HOOD37	37	.59	50	.41
HOOD50	50	.75	50	.52

Metal Hoods

Part #	Contacts	Each	Qty	Price
MHOOD09	9	1.55	50	1.08
MHOOD15	15	1.65	25	1.15
MHOOD25	25	1.75	25	1.22

Metalized Plastic Hoods

Part #	Contacts	Each	Qty	Price
MPHOOD09	9	.50	50	.29
MPHOOD15	15	.45	50	.31
MPHOOD25	25	.55	50	.33
MPHOOD37	37	.65	50	.45

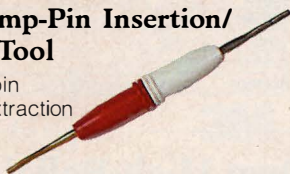
Hood with Thumbscrews

Metalized hood with thumbscrews provides easy hookup.

Part #	Each	Qty	Price
MPHOOD25-TS	.99	100	.65

D-SUB Crimp-Pin Insertion/Extraction Tool

Makes D-SUB pin insertion and extraction easy.

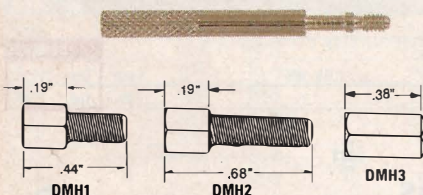


EXT-027 1 lb4.99

D-SUB Mounting Hardware

Choose from a variety of mounting screws and stand-offs to accommodate most D-sub connectors. Use the thumbscrews to allow easy disconnect or standard screws for more permanent installations.

DMH5



Part #	10 pcs	100 pcs	1K pcs
DMH1-XXX .19" Standoff w/ .44" lengths, washer and nut	2.99	19.99	90.00
DMH2-XXX .19" Standoff w/ .68" lengths, washer and nut	2.99	19.99	90.00
DMH3-XXX .38" Female to female standoff	2.99	19.99	90.00
DMH4-XXX Standard D-SUB mounting screws and brackets	1.99	14.99	90.00
DMH5-XXX Thumb screws	2.99	24.99	145.00

Note: Replace XXX in part number with 10, 100 or 1K

D-SUB Miniature Connectors

Straight PC-Mount

Similar to wire-wrap style, these D-SUB connectors feature shorter pins for soldering to PC boards.



Part #	# Pins	Type	Ea.	Qty	Price
DB09PC	9	Male	.45	100	.27
DB09SC	9	Female	.49	100	.34
DB15PC	15	Male	.55	50	.38
DB15SC	15	Female	.59	50	.41
DB25PC	25	Male	.65	50	.45
DB25SC	25	Female	.75	50	.52
DB37PC	37	Male	1.19	40	.83
DB37SC	37	Female	1.29	40	.90
DB50PC	50	Male	1.85	25	1.29
DB50SC	50	Female	2.29	30	1.60



Wire-Wrap

Wire-wrap pins for all your prototyping applications, .51" long pins are .03" square.

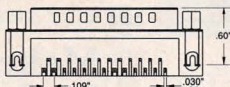


Part #	# Pins	Type	Ea.	Qty	Price
DB09PWW	9	Male	3.29	100	2.30
DB09SWW	9	Female	3.69	40	2.58
DB25PWW	25	Male	6.49	20	4.54
DB25SWW	25	Female	6.89	20	4.82
DB37PWW	37	Male	7.99	25	5.56
DB37SWW	37	Female	8.49	25	5.93



Right-Angle PC-Mount (Short Style)

0.6 inch spacing from mounting hole to connector face. Solder-type PC mount.

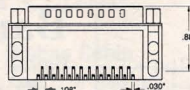


Part #	# Pins	Type	Ea.	Qty	Price
DB09PRS	9	Male	.49	90	.34
DB09SRS	9	Female	.59	40	.41
DB15PRS	15	Male	.75	70	.52
DB15SRS	15	Female	.79	70	.55
HDB15SRS	15 (High Density)	Female	1.25	90	.87
DB25PRS	25	Male	.83	50	.58
DB25SRS	25	Female	.89	50	.62
DB37PRS	37	Male	1.59	40	1.11
DB37SRS	37	Female	1.69	40	1.18



Right-Angle PC-Mount (Long Style)

0.9 inch spacing from mounting hole to connector face. Solder-type PC mount.



Part #	# Pins	Type	Ea.	Qty	Price
DB09PR	9	Male	1.19	100	.83
DB09SR	9	Female	1.39	90	.97
DB15PR	15	Male	1.69	50	1.19
DB15SR	15	Female	1.99	70	1.39
DB25PR	25	Male	1.79	50	1.25
DB25SR	25	Female	2.09	25	1.46
DB37PR	37	Male	3.59	25	2.51
DB37SR	37	Female	3.99	40	2.79

Solder Cup

Solder cup D-SUB connectors for making cable assemblies using standard round cable. Use hoods sold at left.



Part #	# Pins	Type	Ea.	Qty	Price
DB09P	9	Male	.39	50	.27
DB09S	9	Female	.45	50	.34
DB15P	15	Male	.51	50	.35
DB15S	15	Female	.59	50	.41
HDB15P*	15	Male	.79	50	.55
HDB15S*	15	Female	.89	50	.62
DB19P	19	Male	.69	50	.48
DB19S	19	Female	.75	50	.52
DB25P	25	Male	.59	50	.41
DB25S	25	Female	.69	50	.48
DB37P	37	Male	1.09	40	.76
DB37S	37	Female	1.19	40	.83
DB50P	50	Male	1.69	40	1.19
DB50S	50	Female	2.09	40	1.46

* High Density, use 9-pin hoods



Crimp-Pin Style

These easy-to-assemble connectors come in many useful sizes. Insertion/extraction tool is sold at left.



Part #	# Pins	Type	Ea.	Qty	Price
CP09P	9	Male	.49	50	.35
CP09S	9	Female	.49	50	.35
CP15P	15	Male	.59	50	.45
CP15S	15	Female	.59	50	.45
HCP15P*	15	Male	1.49	25	1.12
CP25P	25	Male	.59	50	.45
CP25S	25	Female	.59	50	.45
CP37P	37	Male	1.10	40	.80
CP37S	37	Female	1.20	40	.85
HCP15S*	15	Female	1.49	25	1.12

* includes 15 pieces high-density crimp pins



D-SUB Crimp Pins

Crimp pins for inserted-pin connectors. High quality gold plated pins allow easy D-Sub connector assembly.



Part #	100 pins	1K pins
CPP-xxx	4.99	39.99
CPS-xxx	4.99	39.99

Note: Replace xx in part # with 100 or 1K



IDC Ribbon Cable

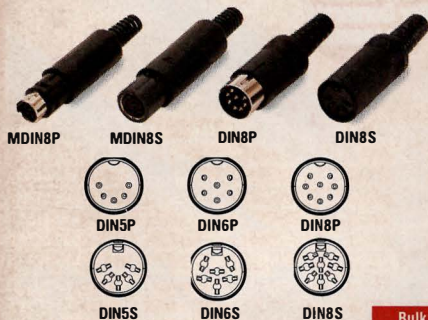
Insulation displacement type for all your standard flat cable applications.



Part #	# Pins	Type	Ea.	Qty	Price
IDB09P	9	Male	1.09	100	.87
IDB09S	9	Female	1.09	100	.87
IDB15P	15	Male	1.39	50	1.12
IDB15S	15	Female	1.39	50	1.12
IDB25P	25	Male	1.39	50	1.05
IDB25S	25	Female	1.39	50	1.05
IDB37P	37	Male	2.49	40	1.90
IDB37S	37	Female	2.49	40	1.90

DIN Connectors and Jacks

- Ideal for low density, multi-conductor applications
- Plugs & sockets include strain reliefs
- DINs are rated 2A @ 100VAC, MDINs are 2A and 12VDC and 1A @ 100VAC



Part #	Description	Each	Bulk	
			Qty	Price
DIN5P	5-pin male DIN plug	.55	25	.33
DIN6P	6-pin male DIN plug	.59	100	.34
DIN8P	8-pin male DIN plug	.69	100	.47
DIN5S	5-pin female DIN socket	.55	100	.33
DIN6S	6-pin female DIN socket	.59	100	.34
DIN8S	8-pin female DIN socket	.69	50	.41
DIN8SRT	8-pin female, right-angle PC mount	.69	250	.41
MDIN6P	6-pin male mini DIN plug	.89	150	.53
MDIN8P	8-pin male mini DIN plug	1.09	50	.66
MDIN5S	5-pin female mini DIN socket	.79	25	.67
MDIN6S	6-pin female mini DIN socket	.89	50	.53
MDIN8S	8-pin female mini DIN socket	1.09	100	.87
DIN5PJ	5-pin female panel jack	.55	25	.33
DIN6PJ	6-pin female panel jack	.59	200	.34
DIN8PJ	8-pin female panel jack	.79	200	.47

RCA Connectors

- Shielded plugs minimize noise and signal loss
- Red and black for left and right channel coding



Part #	Description	Each	Bulk	
			Qty	Price
RCA-BP	Black plug	.49	100	.29
RCA-BS	Black socket	.49	100	.29
RCA-RP	Red plug	.49	100	.29
RCA-RS	Red socket	.49	100	.29

Audio Plugs and Jacks

- Stereo and mono versions in 1/8" and 1/4" designs
- Ideal for headphones, mini-speakers, etc.



Part #	Description	Each	Bulk	
			Qty	Price
M18P	1/8" (3.5mm) Mono plug	.79	50	.47
M18S	1/8" (3.5mm) Mono jack	.79	50	.47
M14P	1/4" (6.3mm) Mono plug	.79	25	.47
M14S	1/4" (6.3mm) Mono jack	.79	25	.47
S18P	1/8" (3.5mm) Stereo plug	.99	50	.59
S18S	1/8" (3.5mm) Stereo jack	.99	50	.59
S14P	1/4" (6.3mm) Stereo plug	.99	50	.59
S14S	1/4" (6.3mm) Stereo jack	.99	100	.59

Power Connectors

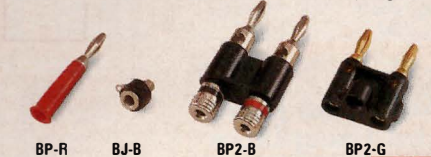
- Connector contacts designed for power applications
- Non-shorting design for live circuits



Part #	Description	Each	Bulk	
			Qty	Price
PC13P	1.3mm plug	.59	100	.34
PC21P	2.1mm plug	.59	100	.34
PC25P	2.5mm plug	.59	100	.34
PC13S	1.3mm jack	.69	100	.41
PC21S	2.1mm jack	.69	100	.41
PC25S	2.5mm jack	.69	100	.41

Banana Connectors

- Ideal for testing purposes
- Available in female jacks or male plugs



Part #	Description	Each	Bulk	
			Qty	Price
BJ-B	Black chassis jack	.69	100	.41
BJ-R	Red chassis jack	.69	100	.41
BP-B	Black banana plug	.79	100	.47
BP-R	Red banana plug	.79	100	.47
BP2-B	Black double banana plug	3.99	100	2.37
BP2-R	Red double banana plug	2.99	100	1.77
BP2-G	Dual black gold-plated banana plug	3.99	100	2.37

Audio Connectors

- High-quality nickel-plated connectors
- Use to extend existing cables



Part #	Description	Each	Bulk	
			Qty	Price
RCA-2F	RCA jack to RCA jack	.69	15	.41
RCA2-MSP	2 RCA jacks to a 1/8" stereo plug	2.99	10	1.79
MSJ2-MSP	Two 1/8" jacks to a 1/8" plug	1.39	25	.83
MSJ2-SP	Two 1/8" jacks to a 1/4" plug	1.69	15	1.01

Solderless Connector Kit

This assortment of over 120 connectors is ideal for anyone trying to establish a well-stocked parts supply. Color-coded connectors include a clear 18-compartment case for quick and easy access.

- Includes male and female spade, lug, fork and in-line connectors
- Assortment of wire sizes from 10 to 22-gauge
- Color-coded for quick identification
- Includes 18-compartment clear plastic case with snap-top lid

LUG-KIT 2 lbs.....\$8.99

75 Ohm F-Connectors

The 75 ohm RG59 coax cable used with these connectors provides better noise immunity than the older 300 ohm twin lead cable. A shield prevents extraneous signals from reaching your signal. That means less ghosts on your screen and a sharper picture! Shipping weight 1 lb.



Part #	Description	Bulk	
		10 pcs	100 pcs
FTWIST-xxx	Male twist-on	2.99	21.99
F111-xxx	Male w/slip-on grip ring	1.99	12.99
F114-xxx	Male w/attached grip ring	2.29	17.99
F61T-xxx	75 ohm terminator	2.29	17.50
F311-xxx	Male-male in-line	4.99	34.99
F332-xxx	Female-female bulkhead	2.99	21.99

To order, replace xxx in part number with quantity

F-Cable Splitters

- Zinc die-cast construction, anti-corrosion chromate plating
- Mounting tabs with screws
- Cast-in grounding block; indoor/outdoor
- 5-900MHz

Part #	Description	Each	Bulk	
			Qty	Price
2WAY	2-way splitter, 3.5 dB signal loss	.99	10	.53
3WAY	3-way splitter, 3.5 dB signal loss	1.19	10	.59
4WAY	4-way splitter, 7.0 dB signal loss	1.29	10	.66
6WAY	6-way splitter, 7.0 dB signal loss	2.39	10	.92

Derick's High Tech Corner



What Are You Waiting For?

Continued from page E37

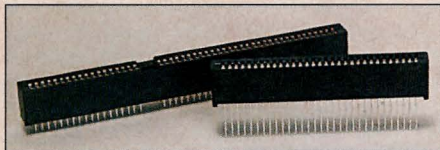
That leaves smut, and on that subject there is ample evidence that you have a real point. Even if you have never shown any interest in such content, you can expect some random broadcast of e-mail to try to get you looking. But you don't have to take the bait, and there are many programs available to help you keep your children safe from its temptations.

One of the best pieces of advice is to put the computer in a common area of the house. Sticking it away in a child's room is like sticking your head in the sand and saying you don't want to know what your kid is doing.

P.S. If you do put the computer in a common area you might want to invest in a pair of headphones for the PC as a sort of compromise from distractions.

www.jdr.com

Edge Card Connectors

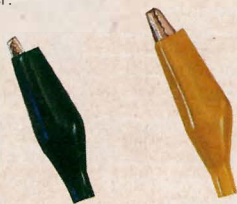


Part #	# Pins	Spacing	Type	Each	Bulk	
					Qty	Price
44P-WW	44	.156"	General Purpose	.99	10	.91
44P-ST	44	.156"	General Purpose	1.99	20	1.25
50P-WW	50	.100"	Apple Bus	2.99	50	2.10
62P-ST	62	.100"	8-bit PC Bus	1.99	50	1.25
72P-ST	72	.100"	General Purpose	1.99	15	1.25
98P-ST	98	.100"	16-bit PC Bus	1.49	40	1.25
100P-WW	100	.125"	S-100	1.99	18	1.69
112P-ST	112	.050"	VESA Local Bus	1.49	10	1.25
120P-ST	120	.050"	PCI Bus	1.49	25	1.25
188P-ST	188	.050"	EISA Bus	1.49	16	1.25

ST = SolderTail WW = Wire-Wrap

Alligator Clips

Design your own custom test leads! These small alligator clips are fully insulated. To order, please specify black (B), green (G), red (R), white (W) or yellow (Y) in place of "x" in part number.



Part #	Description	Each	Qty	Price
SAC-x	Small alligator clip	.29	100	.16

Alligator Lead Set

- Ten 24-gauge wire leads: 16" long
- Each lead has two insulated alligator clips connected by an insulated wire



137-05 1 lb\$2.49

Micro-Hooks

- Spring loaded hook easily clips onto IC leads tightly
- Removable base for direct wiring onto conductive hook

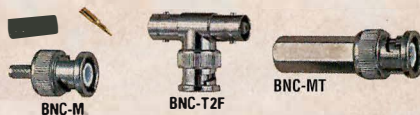


Part #	Description	Each	Bulk	
			Qty	Price
MH-15R	Red 1.5" length	.99	100	.62
MH-15B	Black 1.5" length	.99	100	.62

Shipping weight 1 lb

BNC Connectors

The twist-on BNC connectors conveniently screw on to the cable—no crimpers required! Use couplers to join two cables and T-adaptors for network card connections. Shipping weight 1 lb.



Part #	Description	Each	Bulk	
			Qty	Price
BNC-M	Male crimp type for RG58	.95	50	.74
BNC-MT	Male twist-on type for RG58	1.05	50	.84
BNC-M59	Male crimp for RG59	1.10	50	.88
BNC-MT59	Male twist-on for RG59	1.45	100	1.16
BNC-T2F	T adaptor, double F to M	2.99	50	1.83
BNC-F	Female chassis connector	1.15	100	.92
BNC-2F	Female coupler	.85	50	.68
BNC-2F-1	Female chassis coupler	1.99	50	1.55
BNC-T3F	3 female T adaptor	3.99	100	2.65
BNC-TERM-50	50Ω line terminator	1.89	100	.90
BNC-TERM-50C	50Ω line terminator w/chain	2.99	50	1.90
BNC-TERM-75	75Ω line terminator	1.89	100	.90
BAL-COAX	Coax balun	9.99	15	7.25

Keystone Jacks and Faceplates

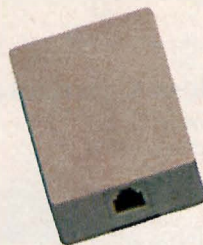
Need a specific configuration for your network connections? This modular system speeds your wiring and helps you make neat connections! Determine how many cutouts you need, buy a combination of modular connectors, and easily crimp the wires in place! Shipping weight 1 lb.



Part #	Description	Each	Qty	Price
PH-KWP1	1 cutout faceplate	.99	100	.75
PH-KWP2	2 cutout faceplate	.99	100	.78
PH-KWP3	3 cutout faceplate	.99	100	.81
PH-KW-B0	Blockout insert	10/2.99	-	-
PH-KJ6	RJ11/12 keystone jack	1.99	50	1.56
PH-KJ8	RJ45 keystone jack	1.99	25	1.62
PH-KJ8-C5	RJ45 keystone jack, cat 5	4.99	50	4.27
PH-KBNC	BNC keystone jack	3.99	25	2.85

Modular Jack Boxes

Use these jack boxes for network or telephone applications. They use color-coded wires and screw terminals to insure good connections. Shipping weight 1 lb.



Part #	Description	Each	Bulk	
			Qty	Price
PH-JBS-6	For RJ11/RJ12 connectors	1.49	100	1.01
PH-JBS-8	For RJ45 connectors	1.99	100	1.22
PH-JBS-8C5	For RJ45 category 5 connectors	4.99	125	3.88



Coaxial/Twinax Cable

Coax and Twinax styles isolate core conductor from interference. Use RG58/AU for ethernet 10Base2 installation.



Part #	Type	100' spool	1K' spool
RG-58/AU-xxx	50Ω Stranded	14.99	110.00
RG-58/U-xxx	50Ω Solid	9.99	79.99
RG-59/U-xxx	75Ω CATV	11.99	94.50
RG-62/U-xxx	75Ω Arcnet	11.99	94.50
TWNX-CBL-xxx	100Ω Twinaxial	39.99	324.00

To order, replace xxx in part number with spool length
Shipping weight: 100', 5 lbs; 1000', 35 lbs

Modular Flat Cable

Flexible modular flat cable with stranded conductors.

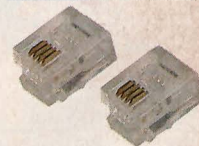


Part#	Size	50' spool	100' spool	1K' spool
PH-4CBL-xxx	4 conductor	-	2.99	28.99
PH-6CBL-xxx	6 conductor	-	8.99	39.99
PH-8CBL-xxx	8 conductor	5.99	11.99	59.99

To order, replace xxx in part number with desired spool length
Shipping weight: 50', 2 lbs; 100', 3 lbs; 1000', 19 lbs

Modular Plugs

Use with the modular flat cable. Shipping weight 1 lb.

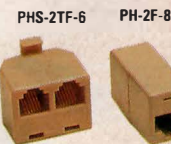


Part#	Type	25 pcs	100 pcs	1K pcs
PH-6P4C-xxx	RJ11	2.99	8.99	49.99
PH-6P6C-xxx	RJ12	3.49	10.99	69.99
PH-8P8C-xxx	RJ45	5.99	17.99	99.99
PH-8P8CK-xxx	RJ45 w/key	6.49	19.99	129.99

To order, replace xxx in part number with 25, 100 or 1K

Modular Adaptors

Use T-adaptors with two female sockets to one male plug to connect multiple devices to one jack. Use in-line couplers with two female sockets to extend cables. Choose straight-through or reversed wiring configurations. Ship weight 1 lb.



Part #	Description	Each	Bulk	
			Qty	Price
PHS-2F-6	RJ11 6P6C Coupler straight wiring	.95	100	.54
PH-2F-6	RJ11 6P6C Coupler reverse wiring	.95	100	.54
PHS-2TF-6	RJ11 6P6C T-Adaptor straight wiring	2.99	100	1.65
PHS-2F-8	RJ45 8P8C Coupler straight wiring	1.25	100	.93
PH-2F-8	RJ45 8P8C Coupler reverse wiring	1.25	100	.93
PHS-2TF-8	RJ45 8P8C T-Adaptor straight wiring	2.99	100	1.65

Ribbon Cable

Monochrome

Single color high-quality ribbon cable with 28-gauge conductors on 0.05" centers. Ideal for use with IDC crimp style connectors.

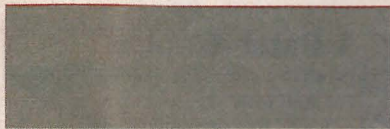


Part#	AWG	# Conductors	10' spool	100' spool
RC10-xxx	28	10	1.50	10.00
RC16-xxx	28	16	1.80	12.80
RC20-xxx	28	20	2.10	16.00
RC25-xxx	28	25	3.20	20.00
RC26-xxx	28	26	3.40	20.80
RC34-xxx	28	34	4.20	27.20
RC40-xxx	28	40	5.10	32.00
RC50-xxx	28	50	6.80	40.00

To order, replace xxx in part number with spool length
Shipping weight: 10' spool 2 lbs; 100' spool 10 lbs

Half Pitch Ribbon Cable

Can't find the right SCSI cable? Make custom SCSI-2 and SCSI-3 cables using our half-pitch ribbon cable and high-density crimp connectors. The new high speed SCSI



Rainbow Ribbon Cable

Color coded 28-gauge conductors on 0.05" centers. Ideal for custom cables where conductors must be easily traced. Use with IDC type connector.



Part #	AWG	# Conductors	10' spool	100' spool
RCC10-xxx	28	10	2.00	17.60
RCC16-xxx	28	16	3.20	24.00
RCC20-xxx	28	20	4.00	30.40
RCC25-xxx	28	25	5.00	36.80
RCC26-xxx	28	26	5.20	40.00
RCC34-xxx	28	34	6.80	51.20
RCC40-xxx	28	40	8.00	67.20
RCC50-xxx	28	50	10.00	73.60

To order, replace xxx in part number with spool length
Shipping weight: 10' spool 2 lbs; 100' spool 10 lbs

standards are particularly sensitive to cable length. Keeping your cables as short as possible will help insure reliable SCSI operation. Single color ribbon cable with 30AWG conductors on .025" spacing.

Part #	AWG	# Conductors	10' spool	100' spool
RC-HP50-xxx	28	50	19.99	149.99
RC-HP68-xxx	28	68	24.99	199.99

To order, replace xxx in part number with spool length
Shipping weight: 10' spool 2 lbs; 100' spool 10 lbs

Category-5 Network Cable

Buy your network cable by the box and save! We offer unshielded twisted pair (UTP) which is commonly used for ethernet application. 24-gauge (AWG) Category 5 cable supports both 10Mbps and 100Mbps data rates.

- 24-gauge (AWG) Category-5 cable
- Unshielded twisted pair (UTP) is ideal for Ethernet applications
- Supports both 10Mbps and 100Mbps data rates



1K' pull box can help save time when pulling multiple cables

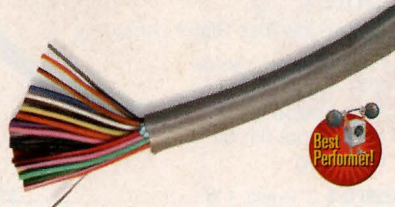
Part #	Pair	Category	500' spool	1K' spool
UTP10-xxx	4 pair solid, unshielded	5	54.99	99.99
UTP20-xxx	4 pair stranded, unshielded	5	69.99	129.99
STP10-xxx	4 pair solid, shielded	5	89.99	179.99
STP20-xxx	4 pair stranded, shielded	5	89.99	179.99

To order, replace xxx in part number with spool length
Shipping weight: 500' roll, 12 lbs; 1K' box, 25 lbs

Round Cable

Color coded round cable; choose 9 or 25-conductor. 28-gauge stranded cable with foil shield and solid drain wire for easy ground connection.

- 28 awg stranded cable
- PVC outer insulation
- Foil shielding with ground wire



Part #	10' spool	100' spool	1K' spool
CABLE-9S-xxx	3.99	29.60	187.00
CABLE-25S-xxx	6.99	49.70	298.00

To order, replace xxx in part number with spool length
Shipping weight: 10' spool, 2 lbs; 100' spool, 6 lbs; 1K' box, 60 lbs

www.jdr.com

Fax Toll Free!
1-800-538-5005

Wire Markers

3M wire marking kits make cabling jobs easier! Write-on adhesive labels can be used on cables, wire bundles, panel connectors, switches and more. Write-on tags can be used on individual wires, cables and cable bundles (when used with plastic ties). Shipping weight 1 lb.



Part #	Description	Label Size	Qty/roll	Price
SWD	Dispenser w/1 roll labels	3/4" x 1-3/8"	250	\$19.99
SLW	Dispenser	1" x 5"	70	\$24.99
SWD-R	Refill roll for SWD	3/4" x 1-3/8"	250	\$15.99
SLW-R	Refill roll for SLW	1" x 5"	70	\$19.99
STD-TAG	Dispenser w/pen & tags	3/75" x 2.4"	50	\$37.99
STD-101	Refill roll for STD-TAG	3/75" x 2.4"	50	\$4.99

Nylon Tie Wraps

These packages of tie wraps will help any wiring project look tidy and can reduce stress-related failure too! Also useful for automotive, stereo, TV and other wiring applications. Sh. wt. 1 lb.



Part #	Length	Qty	Price
TW4	4"	100	1.89
TW6	6"	100	2.79
TW8	8"	100	3.49
TW12	12"	100	7.99
TW15	15"	100	9.99

Tie Wrap Tool

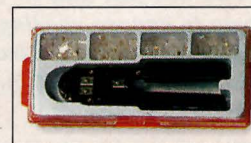
This lightweight tool is fast and efficient. Simply place the tie wrap tab in the tool and squeeze. After the tool has cinched the bundle tight enough, simply twist to remove the excess strap. For 18 to 50 lb straps.



TW-TOOL Tie wrap tool, 1 lb.....\$12.99

Modular Crimp Tools

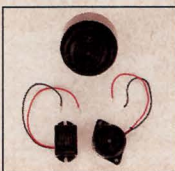
Strip and crimp your RJ11 and RJ45 cables with these high-quality crimp tools.



HT-2037	Tool w/fifty 6P4C RJ11 conn, 1 lb	\$18.99
HT-210A	Tool w/ten 8P8C RJ45 conn, 1 lb	\$14.99
PH-384	RJ11 6P4C plastic crimp tool, 1 lb	\$3.99
PH-1005-6C	RJ11 6P6C metal crimp tool, 1 lb	\$13.99

Buzzers

These buzzers come in 3 styles and operate at temperatures from -20°C to +60°C. G355T has screw terminals.



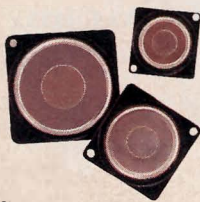
Part#	Operating Voltage	Size	Price
GHS3600	4-8VDC*	0.64"H x 0.69"W x 1.26"D	1.49
GHS6600	20-28VDC*	0.64"H x 1.02"W x 1.5"D	1.79
G355T	4-28VDC**	1.692"dia. x 1.34"H	4.95

*85dB @ 100cm sound output; maximum current 30mA

**80dB @ 20cm sound output; maximum current 1.5mA

Flat Magnetic Speakers

- Plastic ABS frame with stainless steel diaphragm and ferrite magnet
- 8ohm nominal impedance @ 1kHz
- 0.4W input
- Frequency response and output SPL:
TP30S: 1.3kHz - 8kHz/70dB
TP40S: 600kHz - 6kHz/70dB
TP50S: 500kHz - 4kHz/70dB
- Operating temperature -20°C to 55°C
- Solder tab contacts



Part#	Size	Price
TP30S	1.18" square x 0.157" thick	1.79
TP40S	1.57" square x 0.196" thick	2.09
TP50S	1.97" square x 0.236" thick	2.39

You Can Count on JDR's Service!

Our company has done business with JDR for several years. As JDR has changed, so have the needs of IMO—with regard to computer-based components. Whether it is a custom configured PC, non-stock software/hardware, replacement of failed components or research on a problem, JDR has always been helpful in resolving our problems in a timely manner.

Your technical support personnel have been extremely responsive to our needs. The delivery provided to our location has also been instrumental in our continued business relationship with JDR. While we are halfway across the U.S., delivery is still overnight when required. I will continue to use JDR and to recommend them to anyone needing quality products and service. Thanks to your responsiveness, my job has been simpler.

**Michael Egnew, Plant Services Coordinator
Columbia, KY**

BNC Coaxial Cables

- Low-loss cables are fully molded
- Nickel-plated BNC (F) connectors



RG59-6 6' RG59 75 ohm cable, 1 lb\$2.99

Special RG59 Coaxial Cables

- 6' long 75 ohm low-loss RG59 cable
- Fully molded cables with nickel-plated connectors

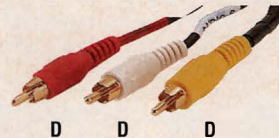


RG59RCA-F-6 Plug (G) to plug (D), 1 lb\$1.99

RG59RCA-MM-6 Plug (D) to plug (D), 1 lb\$1.99

Video Patch Cables

- Color-coded left and right audio plus video connectors
- Low loss spiral-wound copper shield
- Gold-plated RCA plug (D) to RCA plug (D) cables



VCR6 6' Molded cable, 1 lb\$3.99

VCR12 12' Molded cable, 1 lb\$5.99

RCA3-MM 6' High-grade cable, 1 lb.....\$7.99

F-Type Coaxial Cables

- 75 ohm low-loss RG59 cable
- Fully molded cables with nickel-plated male F-type screw-on connectors (G) on each end



RG59FS-6 6' length, 1 lb\$2.29

RG59FS-12 12' length, 2 lbs\$2.99

RG59FS-25 25' length, 2 lbs\$4.99

RG59FS-50 50' length, 3 lbs\$6.99

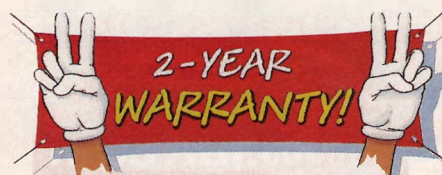
F-Type Quick Coaxial Cables

- 75ohm low-loss RG59 cable
- Fully molded cables with nickel-plated male F-type quick-connectors (H) on each end



RG59FQ-3 3' length, 1 lb\$1.99

RG59FQ-6 6' length, 1 lb\$2.49



Audio Patch Extension Cables

- Shielded cables with black PVC jacket
- Fully molded with color-coded connectors



MMP-MMP-6 6' plug (A) to plug (A), 2 lbs.....\$1.49

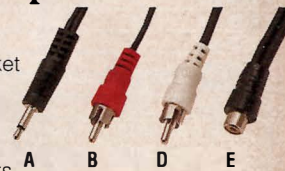
RCA-MMP-6 6' plug (D) to plug (A), 2 lbs.....\$1.49

MSP-MSJ-10C 10' coiled (B) to jack (C), 2 lbs ..\$2.99

MSP-MSJ-10 10' straight (B) to jack (C), 2 lbs ..\$4.99

Y-Cable Adaptors

- Shielded 6" Y-cables with black PVC jacket
- Fully molded cables have color-coded RCA connectors



RCA2P-RCAP 2 plugs (D) to 1 plug (D), 1 lb\$99

RCA2P-RCAJ 2 plugs (D) to 1 jack (E), 1 lb\$99

RCA2J-RCAP 2 jacks (E) to 1 plug (D), 1 lb\$99

RCA2J-MMP 2 jacks (E) to 1 plug (A), 1 lb\$99

RCA2P-MMP 2 plugs (D) to 1 plug (A), 1 lb.....\$1.75

RCA Patch Cables

- 6' shielded audio cables with black PVC jacket
- Fully molded with color-coded RCA connectors



RCA-MM-6 Plug (D) to plug (D), 1 lb.....\$1.49

RCA-MF-6 Plug (D) to jack (E), 1 lb\$1.49

RCA2-MM-6 2 plugs (D) to 2 plugs (D), 1 lb.....\$1.99

RCA2-MF-6 2 plugs (D) to 2 jacks (E), 1 lb\$1.99

RCA4-MM-6 4 plugs (D) to 4 plugs (D), 1 lb.....\$3.99

DIN Patch Cable

- 10-ft shielded cable with black PVC jacket
- Fully molded connectors



DIN5-MF-10 Plug (I) to jack (J), 2 lbs\$3.49

Connector Key

Use this handy key to determine the types of connectors used in the above cables. Simply match the pictured connectors to the appropriate letter.

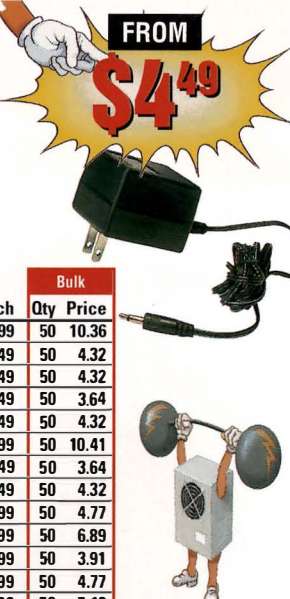
A	1/8" (3.5mm) Mono Plug
B	1/8" (3.5mm) Stereo Plug
C	1/8" (3.5mm) Stereo Jack
D	RCA Plug
E	RCA Jack
F	BNC Plug
G	F-Type Plug
H	F-Type Quick Connect
I	5-pin DIN Plug
J	5-pin DIN Jack

Wall Transformer/ Power Adaptors

Wall-mount transformers plug directly into your AC outlet. Ideal for project development and replacement purposes. Choose plug styles, each is inside or tip-positive. All are 100VAC input except where noted. Shipping weight 2 lbs. U/L and CSA safety approved.

Part #	Output	Plug	Type	Each	Bulk Qty	Price
CXP-4PW	5VDC* @ 600mA	3.5mm	A	12.99	50	10.36
TR09-DC	9VDC @ 500mA	2.1mm	A	5.49	50	4.32
TR09-DC2.5	9VDC @ 500mA	2.5mm	A	5.49	50	4.32
TR12-DC20021	12VDC @ 200mA	2.1mm	A	4.49	50	3.64
TR12-DC	12VDC @ 500mA	2.1mm	A	5.49	50	4.32
TR12-EURO #	12VAC @ 1A	2.1mm	A	12.99	50	10.41
TR12-DC20025	12VDC @ 200mA	2.5mm	A	4.49	50	3.64
TR12-DC2.5	12VDC @ 500mA	2.5mm	A	5.49	50	4.32
TR12-DC3.5	12VDC @ 500mA	3.5mm	B	5.99	50	4.77
TR12-DC1A25	12VDC @ 1A	2.5mm	A	7.99	50	6.89
TR12-500	12VAC @ 500mA	3.5mm	B	4.99	50	3.91
TR12-1	12VAC @ 1A	3.5mm	B	5.99	50	4.77
TR12-2	12VAC @ 2A	3.5mm	B	8.99	50	7.18

* Regulated A = Female (inside positive)



25-Piece Computer Tool Kit

Vinyl Case Holds it All!

This 25-piece kit holds the tools most frequently needed to repair computers, printed circuit boards, peripherals and electronic equipment.

- 30 watt soldering iron, desolder pump, 1 reel of solder and 3 soldering tools, heat pump
- 4-1/2" diagonal cutter, 8" wire cutter/stripper, 5" needle nose pliers and 6" crescent wrench
- 14 to 16-pin IC inserter, IC extractor and 3-claw part extractor; both regular & reverse-action tweezers
- 3/16" and 1/4" screwdriver tips, #1 and #2 Phillips tips, 3/16" and 1/4" nutdriver tips, 1/8" flat screw-driver, #0 Phillips screwdriver and spare parts tube

TK-COM 3 lbs\$39.99



Logiclab Explorer

Digital Circuit Simulator

Transform your PC into a complete environment for "building," testing and simulating digital logic circuits! Easy-to-use software includes drop-down menus, scrollable windows and on-line help screens.

- Includes most common 74LS & CMOS ICs; over 1000 ICs can be placed on a single wire-wrapboard
- LED and 7-segment displays on-screen; programmable clock sources from 1ns to 500ms
- 16 logic probes trigger based on state of transition
- Waveform includes continuous monitor capability

JDR-LOGIC 1 lb\$49.99

Note: Requires EGA or VGA video adaptor



Weller Soldering Station

WLC 100 with Variable Power Control

For serious hobbyists and do-it-yourselfers. The adjustable output lets you adjust the iron's characteristics to your specific work — less power for fine PC traces and more power for heavy wires.

- Lightweight pencil iron with cushioned grip, 0.12" screwdriver tip
- Adjustable power control from 5 to 40 watts
- Stand has natural sponge tip cleaning pad, iron holder with metal safety guard
- 110VAC, 50/60Hz input power, U/L approved

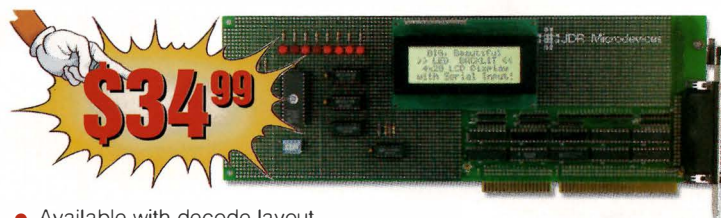
WLC100 2 lbs\$39.99



JDR Prototype Card

With Decode Layout

These cards speed up the implementation of new PC compatible hardware. They buffer the address, data and handshake signals, protecting both your design and test computer.



- Available with decode layout
- Plated-through holes, silk-screened legends, gold-plated edge card connectors, power and ground planes and labeled test points
- Includes mounting bracket, card guide, documentation, project ideas and instructions

JDR-PR10 16-bit ISA card with decode layout, 1 lb\$34.99

JDR-PR1000 32-bit PCI card without decode circuitry or project ideas, 1 lb ..\$59.99

Low-Cost EPROM Programmer

Includes 8-bit compatible ISA interface card

Program EPROMs and EEPROMs quickly and economically! Ideal for hobbyists and technicians who need a general-purpose programmer.



- Programs EPROMs, CMOS EPROMs, page mode EPROMs and EEPROMs up to 512kB
- Zero Insertion Force (ZIF) socket accepts DIP EPROMs up to 28 pins
- Menu-driven DOS based software functions include Blank check, Read, Verify, Program, Load, Save and Edit

MOD-MEP-1C EPROM programmer and software, 3 lbs\$129.99

MOD-EMAC Additional host adaptor card and cables, 2 lbs\$39.99

Selection Guide

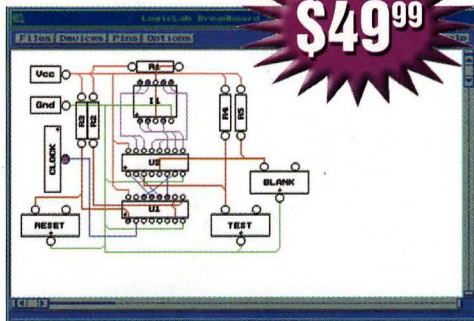
Outstanding Values	2-3
Prototyping	E1-E5
Tools	E6-E11
Test Equipment	E12-E14
Kits	E15-E18
Books	E19-E21
Integrated Circuits	E22-E32
Discrete Components	E33-E38
Enclosures	E39
Miscellaneous	E40
Connectors	E41-E47

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Logiclab Circuit Simulator

No More Wire-Wrapping!

- Includes common 74LS and CMOS ICs
- Programmable clock from 1ns to 500ms



\$49⁹⁹

JDR-LOGIC Circuit simulator, 1 lb\$49.99

Weller Soldering Station

U/L Approved for Safety!

- Adjustable power control from 5-40 watts
- Includes .12" screwdriver tip and stand



\$39⁹⁹

See page 11

WLC100 Solder station, 2 lbs.....\$39.99

Positive Photo Resist Kit

Create Your Own PCBs!

- Etch designs quickly and accurately
- Includes developer, etchant and more



\$29⁹⁹

See page 4

PCB-KIT Photo resist kit, 5 lbs.....\$29.99

Network Cable Tester

Tests RJ45 and BNC Cables!

- Great for testing preinstalled cabling
- Tests 10BaseT and 10Base2 cables



\$89⁹⁹

CT-REMOTE Cable tester, 2 lbs.....\$89.99

Mini CCD Cameras

PCB board or Bullet Versions!

- High-quality NTSC compatible video
- Auto-shutter operates at 1/50-1/100000 sec

CDD-BW1



FROM \$99⁹⁹

See page 18

CCD-BW1 B&W PC board version, 1 lb\$99.99

CCD-BW2 B&W Bullet version, 1 lb\$149.99

CCD-CLR1 Color PC board version, 1 lb\$199.99

CCD-CLR2 Color Bullet version, 1 lb\$299.99



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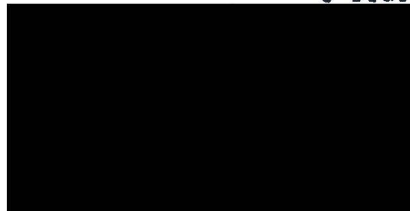
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